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# USSR Report

NATIONAL ECONOMY

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## RESOURCE UTILIZATION, SUPPLY

### RESOURCE CONSERVATION, MATERIALS RECYCLING DRIVE CONTINUES

#### UkSSR Gosplan Stresses Resource Conservation, Recycling

Moscow PLANOVYE KHOZYAYSTVO in Russian No 8, Aug 86 pp 13-21

[Article by V. Masol, UkSSR Gosplan chairman: "Resource Conservation--A Most Important Reserve in Accelerating Socio-Economic Development"]

[Text] Under the current conditions of economic development, resource conservation is taking on ever greater significance among the factors in intensification of social production. The decisions of the 27th CPSU Congress have set the goal of turning the economy of material resources into the main source for meeting the additional needs for these in the national economy. "The task is not a simple one," stressed CPSU Central Committee Secretary General M. S. Gorbachev, "but it is possible to resolve it, especially since experience in a thrifty attitude toward resources has been accumulated in our country..."<sup>1</sup> Considerable positive experience in this matter has also been gained in the Ukrainian SSR.

In fulfilling the decisions of the party and the government for strengthening the regimen of economy and rational application of material and fuel-energy resources, the republic's labor collectives have significantly improved their work in the 11th Five-Year Plan on the introduction of resource saving machines and technology into production, on the development and application of scientifically substantiated expenditure norms for raw goods, materials, fuel and energy, and on involving secondary resources into the sphere of production. Also, the struggle against cases of waste and mismanagement has been intensified.

As a result, in the years of the past five-year plan, 1.9 million tons of ferrous metal roll stock, 1.9 million tons of cement, 3.9 million cubic meters of lumber materials, 5.4 million tons of boiler-furnace fuel, 25.3 GCal of thermal energy, 10.4 billion kW·hr of electrical energy, 409,000 tons of diesel fuel, and 356,000 tons of gasoline were conserved.

This was facilitated primarily by the improvement in party management of the introduction of achievements in scientific-technical progress into production, by the strengthening of its effect on the end results of economic management

<sup>1</sup> "Materialy XXVII syezda Kommunisticheskoy partii Sovetskogo Soyuza" [Materials of the 27th CPSU Congress]. M.: Politizdat, 1986, p 43.

activity, and by the implementation of an effective policy of resource conservation.

In 1983, the Council for Promoting Scientific-Technical Progress was created under the Ukrainian Communist Party Central Committee for strengthening the party's influence over a unified scientific-technical policy and economy of material resources in the republic. Analogous councils were also created under the party obkoms, gorkoms and raykoms.

A system of republic sectorial and regional scientific-technical programs has been aimed at solving the major problems of rational and economical application of resources. The realization of these programs has made it possible to obtain a significant economic effect and to ensure the continued development of organizational forms of strengthening the ties between science and production.

The pivotal point of this system has become the six republic scientific-technical programs: "Metall" [Metal], "Materialoyemkost" [Material Consumption], "Energokompleks" [Energy Complex], "Agrokompleks" [Agro Complex], "Transport" and "Trud" [Labor]. The effectiveness of the program-target approach on the whole was reflected in the change in one of the basic indicators of economic management--material consumption. While in the 10th Five-Year Plan the material consumption of social production in the republic increased annually, in the 11th Five-Year Plan it dropped by 3.4 percent as compared with 1.9 according to the five-year plan, and the economy of resources reached 3.7 billion rubles.

Thus, the economic effect from the realization of the program "Materialoyemkost" in the 11th Five-Year Plan comprised 430 million rubles. The entire increase in commodity production in machine building was obtained practically without increasing the volume of consumption of ferrous metal roll stock, whose relative share was reduced by 20 percent per 1 million rubles of commodity production.

Initiatives and patriotic endeavors directed at resource conservation arose and received widespread support in the republic. In Dnepropetrovskaya Oblast there was a drive to improve the quality of production and the effective application of raw goods and materials. In Zaporozhskaya Oblast there was a movement to reduce the expenditures of manual labor, and in Kharkovskaya Oblast there was a drive to increase the volumes of production output without increasing the expenditures of labor and material resources.

Many enterprises have achieved considerable success in the movement for economy of resources. Among these was the Odessa NPO [scientific-production association "Koslorodmash", where in the last 10 years the volume of production increased by 1.8 times without an increase in the consumption of sheet metal stock; the Severodonetsk PO [production association] "Azot" [nitrogen] which in 1981-1985 worked for 55 days on conserved energy resources and manufactured an additional 36 million rubles worth of production because of it; the Kiev Industrial Wood Processing Association "Kievdrv", whose work experience in the widespread introduction of secondary lumber raw materials and by-products from logging and wood processing into the operational cycle was approved by the CPSU Central Committee, and others.

The implementation of a strict regimen of economy in all sectors of the republic's national economy, in every labor collective and at every work site is realized along two mutually related directions: by means of reducing the material consumption of the manufactured production and by involving in production secondary material and fuel-energy resources, industrial and household waste.

The reduction in material consumption is achieved through the realization of a set of organizational-technical measures which determine the application of the latest scientific-technical achievements in product production at all stages of the reproductive process. The basis for this work under specific production conditions is the formation of a progressive normative base for planning material resources at all levels of management: at the enterprise, in the ministry or department, and at the republic Gosplan [State Planning Committee] and Gossnab [State Committee for Material and Technical Supply]. The existence of a system of progressive technical-economic norms and standards is the primary prerequisite for the rational application of raw goods, materials, fuel and energy.

The introduction of new structural materials and substitutes for raw materials which are in short supply, especially of natural origin, has great significance for the successful implementation of resource conservation policy. Altogether in the years of the 11th Five-Year Plan the institutes of the UkSSR Academy of Sciences have developed over 350 types of new materials. Of these, 275 have already found application in the national economy.

The CPSU Central Committee has given a positive evaluation to the work conducted by the republic on conservation of resources and on reducing material consumption of production on the basis of accelerating scientific-technical progress. The republic's labor collectives are striving to seek out new reserves and capacities for strengthening the regimen of economy. Analysis has shown that the possibilities here are great. At the same time, the necessary level of economic management is still not provided everywhere in our republic, and the reserves for economy of material, raw material and fuel-energy resources are not being utilized in full measure. In some ministries, departments and obls polkoms this work still does not meet party requirements at the current stage. This is true primarily for ferrous metallurgy, for the coal and local industries, construction, and certain other sectors.

Increasing the effectiveness of application of fuel and energy requires strict control and coordination of the measures implemented in the national economy for the realization of energy conservation policy, and the scientific justification of these measures. The influence of dissociated, essentially departmental inspections of the USSR Minenergo [Ministry of Power and Electrification], USSR Gossnab, and Mingazprom [Ministry of the Gas Industry] on the implementation of the entire complex of measures for economy of fuel-energy resources is insignificant. Not one of them has been given control over introducing new types of energy saving engineering and technology into the national economy.

In order to accelerate the transition to application of scientifically substantiated standards for the expenditure of fuel and energy as applied to specific

enterprises, the scientific-research organizations of the USSR Gosplan, in our opinion, must develop nominal (theoretically minimal) standards for the expenditure of fuel-energy resources according to the most important types of production (USSR Gosplan nomenclature). At the same time, we must simplify the order of planning the economy of material and fuel-energy resources and give primary attention to expanding the introduction of progressive technical-economic norms and standards.

Of course, the successful performance of this work requires the expanded application of computer technology, which would make it possible to ensure the formulation of the most material consumptive product nomenclature by the machine method. Under conditions of manual information processing this is quite difficult.

A current and highly developed economy is unthinkable without the comprehensive application of secondary resources and raw materials in production. The useful application of many types of by-products has been practiced in the Ukraine for many years now. The level of utilization of metallurgical slag, by-products from the food sectors of industry, and the collection and processing of waste paper, broken glass, and secondary textile materials have traditionally been high in our republic.

Considerable volumes of soil from strip mining and tailings are directed toward filling excavations and land recultivation. In preparing current and long-term plans the question arises: what are the possibilities for expanding the volumes of application of such resources in the near future and in most distant periods? What economic results should we expect, and what paths must we follow? A study of this problem by specialists of the UkSSR Gosplan and scientific workers at a number of institutes has shown that a significant part of by-products--20 percent or slightly more--may be used in production as material-raw material components. A certain portion of the most valuable types of rock which are not used at the current time (3-5 percent) should be directed to special storage facilities for future processing. A like amount will serve as the material for various artificial structures (dams, levies, etc.) and for landscaping. Most of it, in the opinion of the UkSSR Gosplan, will (as resource capacities are developed) be proposed for use in back filling excavated areas for the purpose of complete extraction of minerals from the depths, for reducing the cost of construction in areas subject to settling, for recultivation, and for reducing dump sites. The underground processing of certain types of minerals is not excluded. Part of the by-products stored in dumps and other storage sites will be subject to additional enrichment.

Increasing the relative share of by-products used most effectively to replace raw goods and materials which are in short supply, and obtaining maximal economic effect--this is one of the most important tasks of the planning and scientific organizations, the sectorial and territorial administrative organs, the collectives of enterprises and associations in all sectors of the national economy.

In the Outline of Development and Location of Productive Forces of the Ukrainian SSR for the Period to the Year 2000, prepared in 1982, we included for the first



time in practice a section on "Application of Secondary Resources." In it, we gave a prognosis for the formation and possibilities for the application of basic types of by-products. At the same time, we conducted an evaluation of the relative share of secondary raw material in the overall resource consumption of the republic's national economy and the growth rates of this indicator.

The republic's party and state organs constantly oversee the problem of resource conservation and use various forms and methods of increasing the initiative and responsibility of the labor collectives, ministries and oblispolkoms for its solution. For example, in 1984, in accordance with the recommendations of the Council for Promoting Scientific-Technical Progress of the Ukrainian Communist Party Central Committee, the republic government developed and ratified measures for the widespread introduction into production of progressive low-waste technologies in the food sectors of the agroindustrial complex.

The volume of production output with application of by-products from secondary products in the food sectors is to be increased from 522 million rubles in 1985 to 643 million rubles in 1990. This will ensure an increase in economic effect in the sum of over 5 million rubles due to the additional involvement of these resources.

The Ukrainian SSR is implementing measures for the development and introduction of new resource- and energy saving technologies and the more complete utilization of secondary resources and production by-products in the sectors of heavy industry. Directions have been outlined for developing such technologies in the 12th Five-Year Plan. The primary tasks have been approved for programs on realizing vital scientific-technical measures in the sphere of resource conservation and on increasing the effectiveness of application of material-raw goods resources for 1986-1990 and for the period to the year 2000.

Provisions have been made here for performing a comparative analysis of the effectiveness of application of primary and secondary resources in solving the problems of development of the raw material base, for ensuring the unconditional utilization of production by-products at newly built and reconstructed enterprises, and for significantly increasing the level of this utilization at operating enterprises.

The goal of this entire project is to ensure at every enterprise and construction site, at every kolkhoz and sovkhoz the coverage of 70-80 percent of the planned growth in the need for raw goods, materials, energy and fuel through their economy.

To intensify the influence of the territorial organs on involving secondary resources into production, it has been proposed that the ispolkoms of local Soviets and the UkSSR Gosagroprom organs prohibit the designation of new land for dump sites, sumps, sludge collectors, or waste heaps. New quarries for mining building materials may be developed only if the republic Gosstroy concludes that the application of by-products from energetics, mining and processing of minerals in the given specific case is impossible.

Practice has shown in recent years that the most effective lever for fulfilling the decisions of the party and the government on questions of resource conservation, and specifically the application of secondary resources is the development

of planning. The section on "Application of Secondary Resources" has become an integral part of the State Plan for economic and social development of the republic, the ministries, oblasts, associations and enterprises. The tasks in this section are set for almost 90 basic heavy tonnage or economically valuable types of by-products with the application of practically all the indicators provided by the resolution of the USSR Council of Ministers dated 25 January 1980 and entitled "On Measures For Further Improving the Application of Secondary Raw Materials in the National Economy." Other sections of the plan define the tasks for reducing the expenditure norms of raw goods and materials, for economy of their basic varietal types, for the development and introduction of resource saving technologies, and for the production of appropriate equipment.

The preparation of tasks in the pre-plan period itself requires reliable data on the volumes of by-product formation, the possibilities of their application as secondary resources, the fulfillment of scientific-research work, and the coordination of the tasks with the resources. The approved tasks forwarded to the enterprises, shops, and sections become the basis around which all the organizational activity of the labor collectives is conducted, while the positive results of the work are rewarded morally and materially. The fulfillment of the tasks is controlled with the aid of the ASU [automation systems].

Sometimes we hear that planning the application of secondary resources is still ineffective, and that the planned tasks reflect the traditionally formulated volumes of their application. I believe we cannot agree with this. First of all, it is quite natural that there is a certain continuity between the "pre-plan" and the current period in the application of by-products, when a special section has been added to the State Plan for economic and social development. The continuity consists of the fact that the forms and methods of planning the procurement and processing of secondary raw materials used previously by enterprises, ministries, and departments on a local scale are now being used in all-state planning.

Secondly, the plan has given great balance and a stable character to the application of by-products. This has made it possible to expand the nomenclature of the secondary resources involved and to significantly increase them. The application of chalk by-products, solid household waste, phosphogypsum, by-products from titanium production, etc. was begun in the 11th Five-Year Plan. Considerably more by-products became "customary" for use in the republic's national economy--metallurgical slag, wood and food by-products, as well as relatively new ones such as ash-slag from heat and power plants, by-products from coal concentration, chemical production and ferrous metallurgy, bentonite clay and iron-containing slurries.

As a result, in the past five-year plan the growth rate of the application of secondary resources was almost 2 times greater than the growth of resource consumption. In 1985 the cost of the primary raw goods and materials which they replaced reached 2.6 billion rubles. The overall volume of utilized by-products increased from 125 million tons to 143 million. This constituted an increase of 14.5 percent. At the same time, their relative share in resource consumption grew from 10 to 12 percent.

However, we evaluate the results not only by the growth rates or volume indicators (although they are very important), but rather by the degree of approaching the maximal possible level of involving by-products, i.e., by the indicator of waste-free production. In the past five-year plan, the application of furnace, iron smelting and nickel slags, of by-products from processing raw mercury, coke production, a number of by-products from petrochemical production, from the food sectors, and certain iron containing by-products have reached this level or closely approached it.

High indicators have been achieved not only at individual enterprises, but also in large regions and sectors. For example, all the metallurgical enterprises of Donetsk Oblast completely process their current output of furnace slag. In Lvov Oblast the application of by-products from coal concentration in the production of masonry ceramics has exceeded 110,000 tons, in Volyn Oblast--80,000 tons, in Chernigov Oblast--70,000 tons, and in Krym, Poltava, Sumy, and Khmel'nitskaya Oblasts--60,000 tons each. Not only do these by-products provide fuel economy. They also make it possible to improve the grade quality of bricks and reduce breakage by improving the roasting conditions. In the UkSSR Minlesprom [Ministry of the Timber and Wood Processing Industry] and the UkSSR Minleskhoz [Ministry of the Forestry Industry] the level of application of wood by-products comprises 94 percent. All this indicates that the attitude toward utilizing secondary resources in most sectors of the republic's national economy has improved. The management of these processes has become more objective and efficient. The adopted measures have had a positive effect on increasing the role and responsibility of local organs, and primarily planning organs, for their implementation.

The widespread application of by-products from energetics and ferrous metallurgy by inter-kolkhoz building organizations has already in the last five-year plan been an important condition in solving problems on the construction of automobile roads to the central farmsteads of kolkhozes and sovkhoses.

Yet we have not been able to resolve all the tasks set for the past five-year plan or to utilize all the reserves. The capacities for removal and shipping of dry ash (650,000 tons) created at heat and power plants are not being fully utilized. Due to the shortage of rolling stock and the lack of readiness of building industry enterprises, only 230,000-240,000 tons of this resource-saving secondary raw material is being supplied. The USSR Minenergo [Ministry of Power and Electrification] has not organized the preparation of ash-slag mixtures in accordance with the demands of consumers and state standards for their application. As before, large quantities of valuable components from strip mining and accompanying rock end up in dumps and are irretrievably lost (for example, rock, bentonite clay, etc.). Not one of the procurement systems has begun collecting wood scraps accumulated by small-scale consumers and in the communal-domestic sphere. This measure would make it possible to involve up to an additional 1 million cubic meters of lumber materials into production.

The main reasons for these negative phenomena are the narrow departmental approach of a number of ministries and departments to the solution of inter-sectorial problems, the absence of an efficient legal, planning and economic mechanism which would ensure their fast and effective solution, and the slow



introduction of finished scientific-technical developments. Eliminating the indicated obstacles is an important condition for the successful fulfillment of the decisions of the 27th CPSU Congress on increasing resource conservation and meeting the tasks of the five-year plan.

And these tasks are rather large and intensive. The growth rates of many heavy tonnage by-products will be retained or will even increase: rock from strip mining and steel smelting slag--by 27 percent, by-products from energetics--by almost 21 percent, iron-containing by-products--by 15 percent, by-products from coal concentration--by 40 percent, phosphogypsum and bentonite clays--by over 2 times, etc. It is enough to say that the raw goods and materials obtained from by-products must comprise almost one-seventh of all the material-raw goods resources used in the republic's national economy.

To achieve such high levels, we will need to solve a number of scientific-technical, organizational and economic problems. Primary effort in the sphere of scientific-technical progress will be applied in the direction of wide-spread promulgation of leading experience and the introduction of new technologies and methods of processing by-products, significantly increasing their resource conservation and economic effectiveness. The technologies of substituting natural fillers with ash-slag have been assimilated by tens of enterprises in the building industry and construction organizations. Yet they must become the property of hundreds of enterprises. Only then will they have a tangible effect on fulfilling the assignments on economy set by the five-year plan. The Donetsk PromstroyNIIproyekt and the Kiev and Dnepropetrovsk Engineering-Construction Institutes have developed and introduced tens of such technologies, and the State Standards have been introduced based on them. Thus, all the organizations planning the introduction of resource saving technologies may be provided with technical documentation. A number of major measures on the introduction of new engineering and technology must be implemented by Minenergo organizations in order to satisfy the demand for ash-slag mixtures of the required composition. Sorting installations must be built at all major power stations, making it possible to supply ash-slag mixtures in accordance with GOST requirements. A project plan for such an installation has been developed. Since the project capacity of the ash-dump sites at most thermal power plants has been exhausted, while the construction of new dump sites will cost many tens, even hundreds of millions of rubles, the transition to a waste-free technology by means of developing utilization installations is undoubtedly effective. For a comprehensive and total solution of this problem, scientists, with the participation of specialists from the USSR Ministroymaterialov [Ministry of the Building Materials Industry] and the USSR Minenergo must accelerate the fulfillment of work on the application of the small-fraction portion of the ash-slag mixtures, as well as work on obtaining slag materials from ash directly in the boiler aggregates.

Ferrous metallurgy enterprises must be more energetic in introducing new methods of utilizing furnace, steel-smelting, and ferro-alloy slags. As demonstrated by the work of the UkSSR Academy of Sciences Institute on Problems in Materials Study, the Zhdanov Metallurgical Institute, and a number of other scientific organizations, the popularization of new technologies will make it possible to obtain higher quality raw material for the production of cement, to improve by 20-25 percent the indicators of concrete fillers obtained from slag, to



reduce the time for smelting steel and the expenditure of materials in open-hearth furnaces, to ensure the widespread application of rubble from crumbling steel-smelting slag in road building, etc.

The technologies for utilization of used foundry sand, casting slag, and enrichment of various by-products (processing of iron and manganese ore, ash-slag, etc.) still await practical implementation. The building organizations can fulfill part of the tasks on economy of metal by replacing steel armature with used steel cable in a number of structures according to the developments of the Lvov Polytechnical Institute. Possibilities for the broad application of secondary resources on the basis of new technology are present in practically all sectors of industry. The republic Gosplan [State Planning Committee], in its plan for the development of science and new technology and in the sectorial and regional plans and programs, strives to coordinate this work and ensure its introduction.

Among the most important questions on improving planning and management of the application of secondary resources we would first of all like to stress the task of achieving more complete coordination of the sectorial and territorial aspects of the plan. The fact is that the rayon, city, and oblast Soviets of People's Deputies and the republic administrative organs, due to a number of objective circumstances, are more interested in utilizing by-products than are the ministries and departments. It is becoming ever harder for the local organs to seek out new land areas for storing by-products. They bear great responsibility for the ecological state and sanitary conditions in the regions and, moreover, it is simply inadmissible today to lose the use of fruitful land.

Yet it is not they, but the ministries and departments, who are often not interested in the development of utilization technologies, that have the means and resources to do so. The products manufactured from by-products, as a rule, do not fit the product "assortment" for the given sector. Due to their low cost they have no special economic attraction, yet they do require expenditures of capital investments and human and material resources. The approach to the problems by sectorial and territorial organs, naturally, is not always the same. It is specifically for this reason that the methodological directives for the compilation of the outline of the State Plan for Economic and Social Development (in the section on "Application of Secondary Resources") provides that the ministries present this project in the cross-section of union republics, and the union republic Councils of Ministers--in the cross-section of ministries. This order allows the USSR Gosplan to clarify any differences of opinion at the early stages of project preparation, to evaluate these differences and to make a decision on them. However, many ministries still represent the plan outline without breakdown by union republics and do not fulfill the requirement that it be forwarded to the union republic Councils of Ministers for coordination. This makes it impossible to define the most expedient proposals and to ensure the necessary coordination of effort.

We believe that in the matter of utilizing secondary resources the time has come to apply more fully the accumulated experience in the development and realization of plans for material-technical provision of the national economy. Experience shows that a centrally planned nomenclature of secondary resources must be the most important thing. It requires the development of all-union

balances and plans of distribution, as well as the solution of intersectorial problems. The secondary resources, which bear the character of a local raw material whose application is limited by the framework of the regions, should be handed over for planning to the republics, krays or oblasts, reinforcing these responsibilities wherever necessary with the appropriate laws. Secondary resources of intra-production and intra-sectorial application must be planned by the enterprises, associations and ministries respectively, while the planning organs should only perform an accounting of them. The supply of secondary resources is an exceptionally beneficial field for the development of direct long-term economic ties and wholesale trade. However, the ministries and organs of the USSR Gosplan have not yet embarked upon this work. Standards have not yet been developed for the delivery of practically all types of secondary raw materials obtained from by-products, with the exception of a few procured by the organizations of the USSR Gosplan and Tsentrsoyuz.

Increasing the legal, plan and economic responsibility of the lower and middle segment for involving secondary resources (and this will inevitably occur if the provision of these resources is assigned to organizations of this segment) will make it possible to attract considerable additional means for the implementation of measures for the utilization and application of secondary raw materials. These will be in the form of bank loans, monies from various enterprise funds, etc.

The republic's economy will be faced with extensive tasks on resource conservation in the 12th Five-Year Plan. In the years 1986-1990 the plan calls for saving 2.2 million tons of ferrous metal roll stock, 1.9 million tons of cement, 3.2 million cubic meters of lumber materials, 8.1 million tons of boiler-furnace fuel, 26.2 million GCal thermal energy, 17.1 billion kW·hr of electrical energy, 685,000 tons of gasoline, and 884,000 tons of diesel fuel. The system of republic, sectorial and regional integrated scientific-technical programs is aimed at solving the major problems of resource conservation in the 12th Five-Year Plan.

Thus, as a result of the realization of the "Metall" [Metal] program, the economic effect as compared with the analogous program in the 11th Five-Year Plan will increase by 1.5 times and will comprise 320 million rubles. The overall economy of ferrous metal sheet stock will comprise 3 million tons, including in ferrous metallurgy--1 million due to the expanded introduction of metal saving technologies and 2 million tons by the consumer due to improved quality and increased output of economical types of metal products.

The republic's metallurgical enterprises will implement measures for improving the structure of steel smelting production by means of the leading development of the converter and electric steel smelting processes, the widespread introduction of non-furnace processing and continuous steel casting, and other progressive technological processes. The operational introduction of mill 550 at the Dnepropetrovsk Metallurgical Plant imeni G. I. Petrovskiy is planned, as well as the introduction of capacities at mill 3000 of the Zhdanov Metallurgical Combine imeni Ilyich and a number of capacities and facilities of the fourth conversion. Twenty rolling mills and a number of shops and units in the pipe and hardware production will be reconstructed, modernized and technically retooled.

This will increase the production of rolled stock and pipes made of low-alloy steel by 1.3 times, the production of these products with heat tempering--by 1.7 times, and the production of metal products with protective coatings--by 1.3 times. The production of no less than 100 new profiles of rolled stock and over 60 new types of pipes and hardware will be assimilated. On the whole in the republic's ferrous metallurgy there will be a savings of 3.5 million tons of fuel due to the expanded application of resource conservation technologies. This will include a savings of no less than 1.4 million tons of coke in metallurgical production, 1.4-1.8 million tons of pig iron in the steel smelting production, and over 1 million tons in the production of rolled sheet stock.

The realization of the republic program "Materialoyemkost" [Material Consumption] will make it possible to obtain a savings of 1.6 million tons of ferrous metal sheet stock. Specifically, there are plans to increase by 1.5 times the application of structures made of lightweight and cellular concretes, steel structures with bolted installation connections, lightweight metallic structures delivered in sets, and to increase the application of plastic pipes by 2-2.5 times.

The program is intended for the broad introduction of metal- and material-conserving technologies, for reducing the mass of products in machine building, for expanding the scope of application of economical types of metal products, etc. In realizing the program we are counting on the active support of the USSR Ministry of Ferrous Metallurgy and the USSR Gosstab in increasing by 1.5-2 times the production and deliveries of solid rolled shape profiles and sheet stock, particularly of low-alloy and alloy steels for machine building. On the whole, the realization of the tasks outlined in the "Materialoyemkost" program should double the economy of metal rolled stock and cement as compared with the analogous program in the 11th Five-Year Plan. The fulfillment of the tasks presented in the 12th Five-Year Plan requires an equally responsible approach on the part of scientists and industrialists toward resource conservation. Here the scientific-technical complexes and engineering centers created at the UkSSR Academy of Sciences must have their say.

The most characteristic peculiarity of the current five-year plan is the increased role of secondary resources in material-raw goods provision, especially in the production of building materials, wood products, and in the agroindustrial complex.

In 1990 the application of secondary resources (including scrap metal) will make it possible to replace primary raw goods and materials costing around 3 billion rubles. The UkSSR Gosagroprom will give particular attention to this problem, since up to 70 million tons of secondary resources are utilized within its system.

Having wholeheartedly approved the course outlined by the party toward accelerating the country's socio-economic development, the labor collectives of the Soviet Ukraine have accepted increased socialist responsibilities for 1986 on resource conservation and reduction of material consumption in production. They hope to increase the volumes of economy of resources by 1.2 times as compared to 1985. In machine building, the entire increase in volume of production will be obtained without increasing the consumption of ferrous metal rolled stock.

All this testifies to the fact that the implementation of an effective policy of resource conservation and the development of the system of planning are important factors in the intensification of production and in the successful realization of the historic decisions of the 27th CPSU Congress and the plan assignments of the 12th Five-Year Plan.

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#### Application of Recycled Materials Increases in 12th Five-Year Plan

Moscow VESTNIK STATISTIKI in Russian No 6, Jun 86 pp 55-58

[Article: "Application of Secondary Raw Materials in the National Economy"]

[Text] The increasing growth rate of social production requires the involvement of an ever larger amount of material resources into economic circulation. Within the system of measures directed at increasing the effectiveness of social production, an important place belongs to the economy of raw goods and materials through the application of secondary raw material resources in sectors of the national economy.

Much attention was given to the application of secondary raw materials in the 11th Five-Year Plan, and great prospects are opening up in the 12th Five-Year Plan.

"One of the most important directions of this work," noted comrade N. I. Ryzhkov at the 27th CPSU Congress, "is the maximal utilization of secondary resources. Their relative share in production consumption is still not that great, although certain republics, as for example the Ukrainian SSR, have accumulated considerable positive experience...In the future, the relative share of secondary raw materials will be significantly increased and brought up to an average of no less than 10-12 percent."\*

At the present time, the ministries and departments bear the responsibility for the procurement and supply of secondary raw materials by their subordinate enterprises and organizations. The union and autonomous republic Councils of Ministers, the ispolkoms of the kray, oblast, city and rayon Soviets of People's Deputies, the USSR Gosstab and Tsentrsoyuz bear the responsibility for the procurement of secondary raw material by the population.

The volume of procurement of secondary raw material has increased in the years of the 11th Five-Year Plan. In 1985 as compared with 1981 the procurement increased as follows: waste paper by 15 percent, secondary polymer raw material by 95 percent, used tires by 10 percent, recycled glass by 20 percent, ferrous metal scrap by 3 percent, and nonferrous metal scrap by 9 percent.

The growth in the volumes of procurement of secondary raw materials has been facilitated to a significant degree by the strengthening of the material-technical base of the USSR Gosstab and Tsentrsoyuz procurement organizations and the application of progressive forms of its procurement by the population.

\* "Materialy XXVII syezda KPSS" [Materials of the 27th CPSU Congress] M.: Politizdat, 1986, p 234.



The procurement network of the USSR Gosstab organizations has significantly increased over the years of the 11th Five-Year Plan: 1,680 store-centers have been opened, 350 store-pavilion units made of lightweight metal structures with convenient sales halls and auxiliary buildings have been established.

In order to involve secondary raw materials available in remote and sparsely populated areas into procurement, the Tsentrosoyuz has developed a standard project for a TsS-374 mobile collection center based on the GKB-817 vehicle trailer. Its production has been organized at its subsidiary plants.

In the years of the 11th Five-Year Plan, cooperative organizations sent 585 such mobile procurement centers. Aside from the mobile centers, the Tsentrosoyuz also opened 1,672 store-centers. Here, besides procurement of secondary raw materials, the sale of goods which are in high demand and fiction books has been organized from consumer cooperative funds for those who turn in recyclable secondary raw materials. Every year the cooperative organizations sell 30-40 million rubles worth of various goods in exchange to those who turn in secondary raw materials.

In spite of definite positive shifts in the organization of procurement of secondary raw materials, a number of ministries and departments and union republic Councils of Ministers have not provided for the fulfillment of the plan assignments for the years of the 11th Five-Year Plan.

Thus, the fulfillment of tasks set by the USSR State Plan for Economic and Social Development on the procurement of the most important types of secondary raw materials in the 11th Five-Year Plan are characterized by the following data:

	1 - (тысяч тонн)		
	1981-1985 гг.		
	2- План заготовки	3- Заготовлено	4-5 выпол- нения плана
5- Макулатура . . . . .	12 585	12 563	99,8
6- Материалы текстильные вторичные . . . . .	2 813	2 759	98
7- Сырье полимерное вторичное . . . . .	299	352	117
8- Шины изношенные . . . . .	1 640	1 567	96
9- Стеклобой . . . . .	3 061	3 309	108
10- Лом черных металлов . . . . .	244 874	246 426	100,6
11- Лом цветных металлов . . . . .	8 487	8 717	103

Key to table:

- |                                 |                                    |
|---------------------------------|------------------------------------|
| 1 - (thousand tons)             | 7 - Secondary polymer raw material |
| 2 - Procurement plan            | 8 - Used tires                     |
| 3 - Procured                    | 9 - Broken glass                   |
| 4 - % of plan fulfillment       | 10 - Ferrous metal scrap           |
| 5 - Waste paper                 | 11 - Nonferrous metal scrap        |
| 6 - Secondary textile materials |                                    |

The amount procured was less than specified in the plan for waste paper by 22,200 tons, for secondary textile materials by 54,000 tons, and for used tires by 73,000 tons.

The procurement organizations of Moldavia, Georgia and Azerbaijan allowed the greatest lag in fulfillment of the plan for procurement of secondary raw materials.

The procurement organizations of all the union republic gossnabs except those of the Uzbek SSR, the Armenian SSR and the Estonian SSR allowed underfulfillment of the plan for procurement of used tires.

Individual ministries allowed underfulfillment of the plan for procurement of scrap and ferrous metal by-products. Thus, in 1985 the enterprises of the USSR Mintyazhstroy [Ministry of Construction of Heavy Industry Enterprises] procured 32,500 tons less scrap and ferrous metal by-products than envisioned in the plan. The enterprises of the USSR Minugleprom [Ministry of the Coal Industry] procured 24,100 tons less, of the USSR Minpromstroy [Ministry of Industrial Construction]--8,100 tons less, and of the USSR Ministroy [Ministry of Construction]--7,500 tons less. The enterprises and organizations subordinate to the UkSSR Council of Ministers procured 105,800 tons less, the Kazakh SSR--53,800 tons less, and the RSFSR--12,900 tons less.

As of 1981, the USSR State Plan for Economic and Social Development established tasks for the application of specific types of secondary raw materials by the ministries and departments in which they are formed or only utilized.

The nomenclature of utilized secondary raw materials has expanded significantly in the years of the 11th Five-Year Plan. The list of ministries and departments for whom the tasks are set, as well as the make-up and volumes of application of the secondary raw materials have also increased.

Thus, in 1981 tasks for the application of secondary raw materials were set for 14 types of materials for 10 ministries and 4 union republic Councils of Ministers. In 1985 the nomenclature of secondary raw materials was expanded to 45 varieties, while the circle of ministries for whom these tasks were established was expanded to 60 and the union republic Councils of Ministers--to 15.

The nomenclature of by-products utilized from agricultural production has also been significantly expanded. At the present time, corn cobs, rice hulls, sunflower seed shells, and cotton pods are all used in microbiological production.

The nomenclature and volume of application of ash and ash-slag by-products from heat and power plants of the USSR Minenergo have been expanded, as well as that of slag from metallurgical production. This includes by-products from blast furnace, steel smelting, iron smelting, nickel, copper, lead-zinc and tin production.

Today there is a longer list of ministries and departments for whom tasks have been established on the application of secondary resources. In 1985 wood by-products were used at enterprises of 67 ministries and departments. Ash and ash-slag by-products were used at enterprises of 21 ministries and departments,

and secondary polymer raw materials (including the by-products from the production of chemical fibers and filaments) were used at enterprises of 40 ministries and departments.

The volumes of application have significantly increased over the years of the 11th Five-Year Plan, which is evident from the data presented:

1- (тысяч тонн)			
А	2- Использовано		3- 1985 г. в % к 1981 г.
	1981 г.	1985 г.	
	1	2	3
4- Макулатура	1 860	2 866	154
5- Материалы текстильные вторичные	358	737	в 2,1 раза -28
6- Сырье полимерное вторичное (включая отходы химических волокон)	14,1	280	в 20 раз -28
7- Шины изношенные	229	194	85
8- Отходы каучуковые	2,5	7,5	в 3 раза -28
9- Отходы резиновые	78	108	138
10- Отходы резино-тканевые	45,7	46,0	101
11- Фусы	21,8	21,9	100,5
12- Стеклобой	425	1 028	в 2,4 раза -28
13- Фосфогипс	494	3 263	в 6,6 раза -28
14- Огарки пиритные	2 396	2 317	97
15- Отходы галитовые	4 584	6 346	138
16- Отходы флотации апатита	6 916	7 163	104
17- Шлаки доменного производства	35 918	36 553	102
18- Шлаки сталеплавильного производства	6 782	10 379	153
19- Зола и золошлаковые отходы тепловых электростанций Минэнерго СССР	4 115	12 362	в 3 раза -28
20- Отходы лесозаготовок от собственного производства, тыс. плотных м <sup>3</sup>	2 724	7 820	в 2,9 раза -28
21- Отходы лесопиления и деревообработки от собственного производства, тыс. плотных м <sup>3</sup>	30 286	53 680	в 1,8 раза
22- Кора, тыс. плотных м <sup>3</sup>	3 290	4 822	в 1,5 раза
23- Щелоки сульфитные (50% содержания сухого вещества)	1 201	1 525	127
24- Лигнин	266	503	189
25- Выжимки яблочные	215	131,7	61
26- Выжимки виноградные	585	413	71
27- Отходы переработки чая	1,8	4,9	в 2,7 раза -28

Key to table:

- |  |   |
|--|---|
| 1 - (thousand tons)  | 7 - Used tires                                    |
| 2 - Utilized   | 8 - Caoutchouc (natural rubber) by-products       |
| 3 - 1985 in % of 1981  | 9 - Rubber by-products                            |
| 4 - Waste paper  | 10 - Rubber-fabric by-products                    |
| 5 - Secondary textile materials  | 11 - Coking process by-products (heavy coal tars) |
| 6 - Secondary polymer raw materials (including by-products from chemical fibers) | 12 - Broken glass                                 |
|  | 13 - Phosphogypsum                                |

(continued)

Key to table (continued)

- |   |  |
|---|--|
| 14 - Pyrite cinders   | 21 - By-products from lumber milling and wood processing production, thousand dense cubic meters |
| 15 - Halite by-products   | 22 - Bark, thousand dense cubic meters   |
| 16 - By-products from flotation of apatite                                  | 23 - Sulfite alkali (50% content of dry substance)   |
| 17 - Slag from blast furnace production                                     | 24 - Lignin  |
| 18 - Slag from steel smelting production                                    | 25 - Pressed apple skins   |
| 19 - Ash and ash-slag by-products from USSR Minenergo heat and power plants | 26 - Pressed grape skins   |
| 20 - By-products from logging production, thousand dense cubic meters       | 27 - By-products from tea processing   |
|   | 28 - by ... times  |

We must remember that in the past five-year plan the identified secondary raw material resources alone were quite sufficient to fulfill the tasks for their application in industry as well as in construction and agriculture. The unutilized capacities in this direction of material conservation are quite extensive. For a considerable number of types of secondary raw materials, only part of the volume of their formation is utilized. Thus, 12 percent of halite by-products were utilized, 24 percent of the by-products from apatite flotation, 9 percent from phosphogypsum, 74 percent of the slag from blast furnace production, 38 percent from steel smelting production, 60 percent of the by-products from rubberized fabric production, 62 percent of the heavy coal tars obtained as by-products in the coking process, and 21 percent of the lignin.

The main type of raw material for the production of cellulose and wood pulp at the enterprises of the USSR Minlesbumprom [Ministry of Timber, Pulp and Paper, and Wood Processing Industry] still remain the grade assortments (80 percent). Industrial shavings from wood scraps and firewood comprise only 20 percent of the overall volume of utilized raw material.

The portion of alcohol distillery grains going toward the production of fodder and baker's yeast and other products comprises 4-5 percent of the overall resources. The portion of sugar beet pulp used for fodder production is 13-15 percent, and less than 1 percent is used for industrial processing.

The relative share of application of cottonseed pods for the production of fodder yeast, furfural and other microbiological production comprised 29 percent.

Organizing the application of secondary raw materials on the scale of the national economy and individual sectors of industry is a comprehensive task and requires the coordinated solution of a system of technical, technological, economic, and organizational questions. Specifically, it requires the development of new or the improvement of existing productions and enterprises, which in turn requires capital investments.

For example, during the five-year plan 23 million rubles were spent within the system of consumer cooperatives for the development of enterprises for processing secondary raw materials.



The Ordzhonikidzeabadskiy Combine for processing secondary textile raw materials under the Tadjik consumer union, having a capacity of 5,600 tons a year, was built and placed into operation. Other facilities were shops for the production of non-woven materials and floor coverings at the Bobruyskiy and Gomelskiy Non-Woven Materials Combines, a shop for the production of part-wool yarn at the Borisovskiy Secondary Raw Materials Combine of the Belorussian consumers union. The production of sewing cotton batting was organized at the Tadjik consumers union. Additional capacities were introduced for the production of non-woven materials (4.0 million square meters, which is two times higher than the plan assignment), and sewing cotton batting--3,00 tons (103 percent of the assignment).

The application of secondary raw materials gives a tangible economic effect in the national economy. In 1985 alone, 13 billion rubles worth of primary raw materials were saved.

Specifically, in the years of the 11th Five-Year Plan the enterprises of Tsentrosoyuz have manufactured 455 million rubles worth of products of industrial-technical function and consumer goods with the application of secondary raw materials.

The USSR Gosstab enterprises processing secondary raw materials have put out 277.1 million square meters of sewn linen polishing cloth, 80.9 million square meters of sound insulation fabric for linoleum, 24.1 million square meters of non-woven materials of industrial application (16.9 million square meters of "dornite", 1.9 million square meters of "proksint" fabric for automobile manufacturing, 3.3 million square meters of insole fabric for rubber footwear), 152,800 tons of worsted wool, 174,500 tons of polishing rags, 98,900 tons of cotton batting, 92,200 square meters of all types of fleece jersey fabrics, and 37,600 tons of products made of secondary polymers.

The new edition of the CPSU Program states that resource conservation will become the decisive source for meeting the needs of the national economy for fuel, energy, raw goods and materials. The workers of all spheres of the economy must participate in the implementation of this task.

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## RESOURCE UTILIZATION, SUPPLY

### REPUBLIC COOPERATIVES FOR WASTE PRODUCTS RECYCLING ORGANIZED

#### Approval of Cooperatives

Moscow SOVETSKAYA ROSSIYA in Russian 17 Aug 86 p 2

[Article by N. Zheleznov, TASS reviewer: "Gossnab Is Looking For Talent"]

[Text] A session of the CPSU Central Committee Politburo has reviewed and approved the main principles for the expansion of cooperative production forms during the present stage of the country's social and economic development. The government's proposal concerning measures for establishing cooperatives for the procuring and processing of secondary raw materials in a number of union republics was approved as the first step.

E. A. Kozlov, the chief of Gossnab's Secondary Resources Administration, says: "This news is extremely important for the entire country and for the more effective return of millions of tons of already used raw material -- paper, glass, metal, and plastic -- to circulation. Let us remember that the mighty river of thousands of tons of paper and metal returning to work began with the tiny brook of the school flowing together with the Pioneers. Tens of millions of rubles from pupils are contained in the 13 billion rubles of savings that were obtained last year through savings in raw material and materials."

Faced with the enormous task that has been posed by the 27th CPSU Congress to save resources, however, these results cannot satisfy us, of course. Hope in the people's enthusiasm and an underestimation of the growing difficulties here-- all of this must be left behind. During recent years, we have conducted a search for an effective system to enlist people, who do not work in base branch industries, in this important area. A fundamentally new model for a cooperative organization and for a flexible and tractable system, which would permit the involvement in production in the near future of the social blessings of able-bodied retirees, youth and also specialists that are prepared to devote their free time to this task, has been developed with the help of economists, engineers, sociologists, financial specialists, and workers on local soviets. This new form will be tested in practice under the actual conditions of different regions with the participation of USSR Gossnab organizations in Azerbaijan, Armenia, Latvia, Estonia, Belorussia, Volgograd Oblast, Yakutsk ASSR, and other areas in the Russian Federation.

The cooperatives will have the status of independent cost-accounting organizations. This means that they will answer in rubles for all the results of their activity. The basis of their work will be contracts with USSR Gosstorg organizations and other enterprises and organizations where secondary raw material is generated, stored or used and where products are manufactured from it.

According to the regulation, the minimum number of people having a right to register their cooperative is five. This will permit our lower organizations to be made into truly mass ones. This is especially important within the system of procuring raw materials. Picture to yourself now that, for example, five citizens from that category of people, who are not actively engaged in social production, join together and select this area of activity with the help of Gosstorg's territorial bodies and local soviets. They agree, for example, to collect worn-out automobile tires or suggest a new production process for manufacturing useful raw material from these tire casings. When they have been registered in the local soviet's ispolkom, they begin to work. They open a bank account and receive advances for purchasing the secondary raw material and transportation expenses and the necessary fixed capital from the sponsoring Gosstorg organization. The cooperatives are given complete independence in selecting their partners in the "collection-recycling" production cycle. The rest is the same as at any enterprise: a complete accounting for the prescribed periods with the suppliers or processors of the raw material, payments for expended energy and other services, and the paying of income tax. The remaining income is the net labor fund which the members of the collective and the specialists, whose services are enlisted by contracts, divide among themselves in accordance with the regulation. The cooperative members are permitted to use their personal property-- automobiles, trailers, garages, barns, etc.-- for production needs.

The new cooperatives will embrace the entire area of the secondary raw material industry. They will be able to open small recycling sections and produce, for example, garden tools and different household items, a "thousand small items" of which are still in short supply in department stores, from the waste products. Thus, the cooperatives will be capable of saturating the market with consumer goods; this is beneficial both for the state and for the consumer. This management form will, moreover, permit the initiative of the workers to be directed toward more active participation in strengthening the socialist economy and the more flexible maneuvering of freed resources. This completely satisfies the goals of the party's policy during the present stage.

At first, these voluntary associations will, of course, need help -- professional, management, and methodological. The social and moral aspect of their activity, which is directed in the final analysis toward saving social labor, expanding the service area and expanding the production of consumer goods and other products that are important for the country, is of no small importance. Without a doubt, the expansion of the work of the new cooperatives should attract great attention from local soviets and party committees on the spot. It is very important that the very idea of a cooperative enterprise within the framework of the socialist management system not be compromised from the

very first steps and that the favorable terms, which the state has granted to these production cells, should help in developing a spirit of healthy initiative and implacability toward narrow-minded attitudes, mercenary motives, any type of abuses, and violations of financial discipline. We also expect the active participation of experienced specialists in procuring and processing waste products, engineers, industrial engineers as well as scientists, whose new works can introduce qualitative changes in the production processes of recycling raw material, in this movement.

Thus, the country's raw material shop expects people who are energetic, enterprising, honest and prudent -- people for whom the reorganization means necessary action and a continuous search -- and this means forward movement toward the higher quality of all our life.

#### Organization, Tasks of Cooperatives

Baku BAKINSKIY RABOCHIY in Russian 28 Aug 86 p 3

[Interview with A. Azizbekov, deputy chairman of the Azerbaijan SSR Gosnab, by N. Azizov, BAKINSKIY RABOCHIY correspondent; date and place not specified]

[Text] As has already been reported, the CPSU Central Committee Politburo has reviewed and approved the major principles for cooperative management forms during the present stage of the country's social and economic development. The government's proposal concerning measures for organizing cooperatives for the procurement and processing of secondary raw material in a number of republics -- Azerbaijan, Armenia, Latvia, Estonia, Belorussia, and several areas of the Russian Federation -- has been approved as a first step.

A. Azizbekov, deputy chairman of the Azerbaijan SSR Gosnab, talks with a BAKINSKIY RABOCHIY correspondent about the plans for organizing such cooperatives in our republic and about their tasks and structure.

Aydyn Shamilyevich pointed out at the beginning of the discussion: First of all, it is necessary to observe that the selection of the specialty of the newly organized cooperatives -- the procurement and processing of secondary raw materials -- is no accident. You see, today when the 27th CPSU Congress has adopted a policy of saving resources and improving the use of production and consumption waste products, the need arises to search for new forms for organizing this work which will permit many millions of tons of valuable raw material to be recycled.

Judge for yourself. This year, for example, Azerbaijan expects to generate seven million tons of waste products and only one-fifth of them will be recycled. This indicator is even lower for the country as a whole.

Only 40 percent of the waste lumber, which is generated in the republic, is reprocessed. The remainder is burned or rots in dumps. Of the 3,000 tons of leather waste products, only 800 tons are used. We have no enterprises for processing the more than 2,500 tons of polyethylene film waste products that are generated annually. There are many problems in using old tires, secondary textiles and other items.

The shortage of production capacities, the lack of effective technical solutions for the processing of a number of waste products, the high percentage of manual labor used-- this is an incomplete list of the reasons for the short fall in this avenue that is important for the country's economy. That is why the organization of cooperatives, whose activity is concentrated on collecting and processing waste products -- primarily those generated by the population-- and on the production from them of consumer goods, including cultural, every day and household articles and also products of a production and technical designation, should simplify to some degree the solution of the problem and permit additional resources to be attracted to social production in the near future. A rather flexible system for costaccounting self-repayment will stimulate the most advantageous use of economic management methods.

[Question] What is the procedure for organizing cooperatives and their cooperation with their partners?

[Answer] The cooperatives will be established upon the initiative of the citizens who join them and at the suggestion of enterprises and organizations where secondary raw material is generated, stored and used. They are organized under a territorial body of Gossnab -- in this case, the Azerbaijan SSR Gossnab -- when there is a minimum of five people who wish to join together in a cooperative. In this respect, the ispolkom of the local soviets of people's deputies, on whose territory the collective is being established, makes the decision on their formation.

The cooperatives carry out their work in accordance with the regulation on a self-supporting and self-payment basis.

[Question] From the very beginning, Gossnab assumes the main organizational load for forming cooperatives....

[Answer] Absolutely correct. We will transfer the necessary auxiliary and production premises, equipment and transport systems to the cooperatives for their use. After it is formed, the cooperative -- as an independent organization-- will be able to conclude contracts for the procurement and processing of secondary raw material with both organizations and enterprises in the Gossnab system and with others. When doing this, the amount of work, which is performed by the cooperative, is taken into consideration in the planning indicators for this type of activity by the enterprises, with whom a contract has been concluded, as well as the appropriate local soviets. Thus, this cooperation is extremely beneficial for enterprises.



[Question] In a number of cases, the question of transferring small sections for the production of consumer goods with all their equipment to the cooperative's balance can probably arise. An enterprise is thereby freed of the troublesome concern for side-line production which is often the stepchild of the main production, having received in this a partner who -- on the contrary -- will be interested in the successful expansion of this section.

[Answer] This cannot be ruled out -- especially since the right of transferring the appropriate fixed capital to Gosstab for establishing cooperatives has been given to ministries, departments and the ispolkoms of local soviets.

[Question] Who can become a member of a cooperative and what is the procedure for paying for their labor?

[Answer] Basically, a cooperative accepts people who are not employed in social production: retirees, housewives, students in higher and secondary educational institutions, and workers in state enterprises, organizations and establishments during their free time. Provisions have been made for the acceptance in accordance with a labor contract of workers and employees in those cases where the appropriate specialists are not among the cooperative members or where the work, which has been provided for by the plan and contract, cannot be fulfilled within the required time by the efforts of the cooperative members. In such a situation, the cooperative members and those working in the collective under a labor contract receive the full amount of their pension, educational stipend or wage for their primary work.

Concerning pay, its fund, which is part of the enterprise's income, is generated after deductions for acquiring raw material and material, the services of foreign organizations, transportation and other expenses, and the payment of income tax. The remaining profit is divided among the members of the cooperative in accordance with the personal contribution of each one of them.

[Question] Like any other self-supporting enterprise, a cooperative for procuring and processing secondary raw material must be primarily concerned about their positive economic indicators, otherwise it will simply go "bankrupt" ....

[Answer] Undoubtedly. Moreover, the high quality of the produced items and a real and firm demand for them must be an obligatory condition for the vitality of an enterprise. As they say, to do this it is necessary to keep one's nose to the wind, display initiative, be able to select the best technical solutions intelligently, and make broad use of innovations. The introduction of new production processes and machinery for manufacturing small batches of items must be incorporated into such cooperatives much more rapidly than in traditional production. That is why one cannot manage without the appropriate engineering solutions and bold organizational steps. In the future, cooperatives must compete with state enterprises in the procurement and processing of secondary raw materials along several avenues of their activity. The benefit from such rivalry is mutual.

[Question] Aydyn Shamilyevich, will not the preferential terms, which are being granted to cooperatives, become an enticement for so-called business people? As experience shows, various sections and shops for preparing consumer goods often are transformed into a peculiar type of sinecure for light-fingered people where whole "bouquets" of abuses and violations of technological and financial discipline are regularly displayed.

[Answer] Of course, any -- even the best -- idea can be discredited by illegal actions. From the beginning, however, our cooperatives will contain elements that are opposed to such distortions.

First, the income of the cooperatives will directly depend on the quality and quantity of items produced. It will be considerably more profitable for the members to invest their abilities in the production of high quality items than to search for roundabout ways to obtain profits. The collective interest will also contribute to this.

Second, by working in the wholesale trade system -- the most favorable system, cooperatives will not experience a shortage in equipment nor, moreover, in raw materials: We can simply bury the producers with them.

Finally, the establishment and formation of new relationships within the cooperatives and also between the cooperatives and other enterprises and establishments will be implemented through the effective help of Gosstab and the local soviets.

One should not forget that the organizing of cooperatives is a distinctive type of experiment which requires quite a bit of time to work out all of its links. Each specific cooperative, which will at first begin practically from nothing, must prove its right to exist and subsequently grow by its concrete and tangible results in the form of products required for the national economy.

[Question] Have any concrete steps to organize cooperatives already been taken?

[Answer] The preparatory work is being carried out over the course of several months. We have already assembled the representatives of interested organizations twice. At the present time, their proposals along specific avenues for introducing this or that method for processing production waste products are being summed up. The task now is to find intelligent people and -- what is the main thing -- people who are filled with initiative and who desire and are able to work without constant prompting and directions from above. A wide expanse is, without a doubt, opening up for such people. The new form for organizing cooperative production is a very genuine virgin land for business-like and enterprising workers.

## RESOURCE UTILIZATION, SUPPLY

### FINANCE OFFICIAL ON PENALTIES FOR SUPPLY CONTRACT VIOLATIONS

Moscow FINANSY SSSR in Russian No 8, Aug 86 pp 23-27

[Article by V.T. Parasochka, department chief of the Scientific Research Finance Institute, candidate of economic sciences: "Financial Penalties for Violation of Business Contracts and Their Effectiveness"]

[Text] The national economy's internal balance is the fundamental basis for increasing production efficiency. Fulfilling planned obligations for product delivery in accordance with contracts and orders has extremely great importance to accomplishing it. As specialization and industrial cooperation become more elaborate, hundreds and thousands of enterprises, associations, and construction projects are linked together by mutual responsibility. Failure to meet deadlines for shipment of products to a customer disrupts the pace of production of many work collectives. This causes the economy substantial losses.

Breaches committed by enterprises in delivering industrial goods cause consumers substantial economic losses: failure to fulfill production plans; idle-time of certain brigades, sections, and even shops; payment of wages, above all to workers, without adequate return; a drop in product quality; disruption of smooth operation and output; and a deterioration of the financial condition of associations and enterprises.

Failure to fulfill contracts for deliveries of consumer goods cause shortages in the trade sector and incomplete satisfaction of the public's effective demand, and it has an adverse effect on fulfillment of the plan for commodity sales.

Figures of checks run by USSR Minfin and surveys conducted by NIFI have shown that there has been a steady trend toward some improvement in fulfillment of product delivery plans. For instance, in 1984 fulfillment of the product sales volume indicator adjusted for delivery assignments and obligations rose 0.6 point over 1983 and 1.8 points over 1980. In absolute amounts product deliveries to the economy were short 9 billion rubles, which is barely half of what it was in 1980. In 1984 about one-third of the enterprises in the entire industrial sector failed to fulfill product delivery plans, and 46.6 percent of machinebuilding enterprises using the product sales indicator adjusted for deliveries did not fulfill it. In Mintyazhmash such enterprises represented



43.5 percent, in Minelektrotekhprom 32.7 percent, and in USSR Minlegprom 45 percent.

There are associations and enterprises which have not fulfilled delivery assignments in Minugleprom, USSR Minlesbumprom, Minkhimprom, Minudobreniy, Minenergomash, and certain other ministries. Among the enterprises not fulfilling supply-contract (khozdogovor) obligations there are even some falling short of fulfillment by 5 percent or more. This is usually related to poor organization, poor discipline on the part of workers and supervisory personnel, the inability of managers of associations, enterprises, and shops to see that proper use is made of labor resources and physical resources, hitches in relations among production components, and so on. Often enterprises with equal capabilities achieve unequal results.

Research has shown that causes depending on the performance of the enterprises and generated by deficiencies in their operation average 90-95 percent. The principal one among them is nonfulfillment of the plan for the assigned list of products to be produced. Shortcomings in the organization of production, tardy activation of new capacities, unscheduled idletime of equipment, and the uneven pace of operation of enterprises have a substantial bearing on nonfulfillment of production plans within the assigned products list. Sizable underdeliveries of products resulted from these causes at the Shakhta Plant for Building Electrical Bulk-Handling Machines of Minelektrotekhprom and others.

The internal reasons why enterprises fail to fulfill delivery plans include the following: insufficient monitoring of pace in concluding and fulfilling supply contracts; mistakes in operational and production planning; preparation of substandard documentation; tardiness in supplying purchased raw materials, supplies, intermediate products and components to shops; equipment not in working condition and worktime losses related to the low level of the organization of production and the organization of work; shortcomings in organizing the processing of claims; poor organization of loading and unloading operations.

Approximately 5-10 percent of all failures to perform obligations under contracts depend not on the operation of enterprises, but on the performance of sales-and-supply and transport organizations and supplier enterprises. Quite often nonfulfillment of plans for the volume of sales adjusted for fulfillment of delivery obligations has to do with suppliers' violation of contractual obligations--underdelivery or late delivery of raw materials and supplies, as well as low quality and missing pieces. It should be noted, however, that not all consumer enterprises are reacting vigorously to irresponsible actions by suppliers and are not invoking economic penalties against them. To a considerable degree contractual obligations are violated by organizations at the higher level by making changes in production plans during the year that in a number of cases do not square with plans for product deliveries. Cases are not uncommon in which the higher-level organizations adjust the orders and plans issued during the year without abiding by the procedure set forth in the Regulation on Product Deliveries.

Often breaches of supply plans are related by failure of transport organizations to discharge their obligations to haul the shipments. Cases have been discovered at many enterprises where turnaround time for vehicles is longer than planned during loading and unloading of freight. There are enterprises and associations where materials-handling machinery is at a low level; manual labor is even used in these operations. Radical steps are needed to apply scientific-technical progress in freight loading and unloading.

Fulfillment of the plan for product deliveries in accordance with contracts is considerably better at enterprises operating under the new economic conditions. There is no doubt that the new economic mechanism has had an influence toward improving the operation of those enterprises. But it should be noted that enterprises of five ministries converted to operation under the new system have been operating under the constant attention of economic agencies and party, trade union, and local government authorities and have had preferential conditions with respect to the supply of raw materials, supplies, semifinished products, components, and tools. Enterprises converted to operation under the new system as of 1 January 1986 have practically no benefits with respect to supply, since the experiment is being extended more widely, and the new economic mechanism will be applied throughout the industrial sector beginning on 1 January 1987. In the first half of 1985 not one of the seven machinebuilding ministries converted to the new economic conditions fulfilled assignments for sales adjusted for contractual obligations, and their product deliveries were short 286.3 million rubles, as against 243.7 million rubles for the same period of 1984. Most machinebuilding ministries showed a lower level of fulfillment of contractual obligations in the first half of 1985 than in the corresponding period of 1984 (see the table). The number of associations and enterprises of Minenergomash, Mintyazhmash, Minelektrotekhprom, Minkhimmash, Minstankoprom, Minpribor, and Minselkhoz mash failed to discharge contractual obligations.

Even though there has been an overall improvement noted in enterprise fulfillment of supply contract obligations, the issue of delivery performance is an urgent one, since again in 1986 almost one out of every three enterprises and associations in the industrial sector failed to fulfill plans for the indicator of the volume of sales adjusted for deliveries. There are many reasons for failure to fulfill delivery plans, both those that depend on the performance of specific work collectives and those which do not. Yet usually it is the enterprises and associations themselves which are at fault for the underdeliveries. Consequently, there is a large untapped potential and capability for fulfilling product delivery plans, and every production collective must seek them out and activate them so that obligations to the state and consumers are discharged in full.

In order to determine the degree of fulfillment of assignments and obligations for product deliveries with respect to quantity, deadline, and product lists (product mix) in conformity with contracts concluded and job orders of foreign trade organizations, an indicator has been established in statistical reporting referred to as "Volume of Product Sales in Wholesale Prices of Enterprises Adopted in the Plan, Adjusted for Fulfillment of Delivery Obligations." The percentage of fulfillment of the sales plan adjusted for fulfillment of

assignments and obligations for deliveries is defined as the ratio of the volume of sales adjusted for fulfillment of delivery obligations and assignments divided by the volume of sales envisaged by the plan. Thus this indicator actually becomes the criterion for evaluating the fulfillment of planned obligations for product deliveries.

Fulfillment of Contractual Obligations, in percentage

<u>Ministries</u>	<u>First Half 1984</u>	<u>First Half 1985</u>
Mintyazhmash	99.5	99.2
Minelektrotekhprom	99.0	98.4
Minenergomash	99.1	99.1
Minkhimnash	97.7	98.8
Minstankoprom	98.9	99.1
Minpribor	98.9	98.7
Minselkhozmash	99.5	99.4

Experience shows that at every industrial enterprise there are dozens--and at large enterprises hundreds and thousands--of contracts for delivery of products. The most appropriate criterion for evaluating fulfillment of the plan for deliveries is to evaluate the fulfillment of the plan for each contract, which is in fact done at the enterprises. But this criterion does not give an idea of the general picture with respect to fulfillment of the plan for product deliveries.

To some degree one can get an idea of this by counting the number of contracts fulfilled and by determining their share in the total number of contracts concluded. But the latter indicator does not reflect the real situation with respect to the fulfillment of the delivery plan. If, say, the relative share of contracts fulfilled is 99 percent of their total number at enterprises, this still does not mean that things are in good shape. One or two contracts which have gone unfulfilled may represent a substantial magnitude with respect to the number, value, and relative share of products which were not delivered. That is why this indicator is not suitable for summary evaluation of fulfillment of the plan for product deliveries. It can only supplement the principal one.

The "Volume of Product Sales in Wholesale Prices of Enterprises Adopted in the Plan, Adjusted for Fulfillment of Delivery Obligations," reflects the level of fulfillment of supply-contract obligations at the end of the reporting period (the quarter, the half-year, the first 3 quarters, and the year). To some degree it orients work collectives toward the production and delivery of products in the appropriate quantity, by the stated dates, and in the mix that was ordered. There is no doubt that the effort to fulfill business contract obligations has improved since it was introduced. But its application has not yet fully safeguarded the interests of consumers: during the reporting period (the quarter) there may be cases of violations of delivery dates, the product mix, completeness of the product itself, and the indicator does not "catch" these breaches, since it reflects the situation that has come about in the delivery area only at the end of the reporting period. In addition, the

indicator of sales adjusted for deliveries, when records are kept on its fulfillment according to shipments, leaves a loophole for suppliers to ship products which do not meet the contractual conditions. A typical case is where the level of fulfillment of the plan for sales is higher at all enterprises than the level of fulfillment of the delivery plan. In Mintyazhmash, for example, the gap between fulfillment of the sales plan and fulfillment of delivery obligations is two points, in Minelektrotekhprom it is 2.5 points (101.7 and 99.2 percent; 101.5 and 99 percent, respectively). A gap of five points or more has occurred in 8 percent of Mintyazhmash enterprises applying the delivery indicator and by more than 10 percent in Minelektrotekhprom. A sizable gap in fulfillment of these two indicators may be evidence of certain irregularities, including the production of goods profitable to the producers, but not needed by consumers or facing a limited demand.

It is obvious that the "Volume of Product Sales in Wholesale Prices of Enterprises Adopted in the Plan, Adjusted for Fulfillment of Delivery Obligations" has shortcomings as a criterion for evaluation of delivery plan fulfillment. Economists note that enterprises have been gradually "tightening the reins" for its fulfillment, including refusal to conclude contracts which are difficult to perform. This question deserves attention, since in practice there have been serious breaches in the conclusion and fulfillment of business contracts.

As a rule it is advantageous to the purchaser to stipulate 10-day or monthly delivery intervals, which makes it possible to produce products at a more uniform pace. In case of underdelivery penalties can be exacted against the supplier far more frequently than when deliveries are made by the quarter. In concluding the delivery contract the supplier is motivated to establish longer (quarterly) deadlines, which affords him the possibility of maneuvering within that interval. Often he tries to postpone delivery to the end of the period, since shipment of products even in the last days of the quarter is not reflected in evaluation of the supplier's performance. The indicator of product sales adjusted for fulfillment of delivery obligations does not safeguard the interests of consumers in having a detailed product mix. Quite often articles are produced out of departmental interests that have not been ordered by consumers, and preference is given to the simpler articles that require fewer pains. In many contracts specific dates or product mix are not stipulated, and conditions are not set down to guarantee the preservation of the products.

Supplier enterprises avoid concluding contracts that are difficult to fulfill, spelling out the products list in detail in the text of the contracts, and establishing specific dates for product delivery. In other words, they put pressure on consumers to conclude business contracts under conditions advantageous to themselves. It is no accident that at many of them the ratio of the value of products covered by contracts to the total volume of commodity output (sales) is considerably lower than 100 percent. There are enterprises where this ratio is 85 or even 90 percent. Of course, there may be objective reasons why products are being sold on some other basis than a contract. But the volume of such products must be negligible and must be temporary in nature when it comes to specific products. In our view it would be advisable to link this bonus system to the indicator of the ratio of the value of products



covered by contracts to the total volume of commodity output. If an enterprise has fulfilled the delivery plan at 100 percent, but at the same time the ratio of deliveries under contracts to the plan for commodity output (sales) turns out to be less than 90-95 percent, then bonuses for engineering and technical personnel and employees should be reduced by 50 percent. Applying this condition in the bonus system will undoubtedly motivate work collectives to conclude contracts covering the entire volume of products they produce. Thus in the industrial sector as a whole the relatively good figure for delivery plan fulfillment is exaggerated. This situation can be improved only if there is a further tightening of contract discipline and if financial levers and material incentives put stronger pressure on the interests of work collectives.

Relations pertaining to product deliveries are regulated by the following documents: "Regulation on Deliveries of Industrial Goods" and "Regulation on Deliveries of Consumer Goods." They envisage financial liability of supplier enterprises for nonperformance of delivery conditions. The supplier enterprise pays fines, penalties, and forfeits for breaches of the conditions of a contract and at the same time receives certain amounts of penalties because of the irregular effort of his own suppliers. The absolute amounts of the penalties paid are reaching large proportions at certain enterprises. In 1984 the Aleksandrovka Machinebuilding Plant imeni V. roshilov of the "Soyuzuglemash" VPO of USSR Minugleprom paid 246,000 rubles in fines for short delivery of equipment, 133,000 rubles for short delivery of spare parts, 257,000 rubles for delivery of products that were incomplete, and 68,000 rubles for delivery of substandard products. Sometimes the total amount of penalties received exceeds the amounts paid, and vice versa. In 1984 enterprises of 11 machinebuilding ministries received penalties from suppliers of metal, components, and other materials worth 158 million rubles, which is 10 percent less than in the previous year.

The drop in the absolute amount of fines and penalties in machinebuilding indicates improvement of delivery contract fulfillment. At the same time in certain cases this situation is related to the unsatisfactory effort of the legal departments of plants in exacting fines and penalties from suppliers for short deliveries. As shown by the results of checks that were run, quite often such penalties are not invoked on time or fully, or they are not invoked at all. In 1984 the total amount of fines paid exceeded those received by 28.2 million rubles for Minelektrotekhprom, 9.5 for Minstankoprom, and 3.6 million rubles for Minkhimmash.

In a case when the total amount of penalties received exceeds the amounts of those paid, an enterprise is fulfilling contract obligations more punctually as a supplier than his own suppliers. In the opposite case the plant is violating delivery conditions more than his suppliers are. In analyzing financial and business performance of enterprises, then, the relation between penalties received and those paid should be taken into consideration.

Sometimes the amount of penalties for underdelivery of products exceeds the amount of the products which were not delivered and which is the figure taken into account for calculating the volume of sales adjusted for deliveries. Why

is this the case? There are many reasons for this. One of them is that the indicator used as the criterion "catches" underdeliveries only at the end of the quarter. In practice there are violations of contracts, including product underdeliveries, even during the quarter. In this regard the indicator of the volume of sales adjusted for deliveries does not fully reveal the state of affairs with respect to fulfillment of contractual obligations by enterprises.

Nor does the volume of penalties reflect the real situation. In the opinion of certain economists, the level of invoking economic penalties for short delivery of products does not exceed 30 percent in the industrial sector. This means that the total amount of penalties paid by economic agencies insufficiently reflects the actual scale of violations committed in the branch or in the industry as a whole. What are the conditions and the causes of failing to always invoke the penalties? In certain cases this results from changes in supply plans by sales-and-supply and higher-level organizations, from the scarcity of certain products, from the insufficient preparedness of legal personnel, from the exemption of entire branches from liability for breaches of obligations and exemption of enterprises within a branch. In our view changes in the absolute amount of penalties (the difference between those paid and those received) must be taken into account both in evaluating the performance of work collectives and also in building up incentive funds.

Consumer enterprises incur large economic losses because of underdeliveries of products. The penalties they receive do not compensate for the loss incurred. The economic role and effectiveness of penalties proves not to be sufficient in a number of cases. There is a need to review the rates of the penalties now in effect; some of them should possibly be raised. Increasing the rates would help to exert more pressure toward fulfillment of obligations for product deliveries by enterprises. In addition, the economic losses of the consumer enterprises because of violation of business contracts by suppliers would be more fully made up because of the larger amounts of penalties received.

The regulations on deliveries of industrial products and consumer goods rightly state that nonfulfillment of obligations under contracts is a violation of state discipline. It is important that work collectives and above all the managers of enterprises and associations understand that no one is allowed to violate state discipline. ,

Material incentives of work collectives for fulfillment of the delivery plan go through two channels: through the system for formation of funds and through use of the mechanism of the bonus system for engineering and technical personnel and employees, which are closely related to fulfillment of obligations for product deliveries. In practice the following mechanism is used to link the size of the funds to deliveries: when enterprises fail to fulfill assignments and obligations for product deliveries, this fund is reduced at rates set as a rule at 2 percent for each point of nonfulfillment of the plan for sales adjusted for fulfillment of assignments and obligations related to product deliveries. At enterprises converted to the new economic conditions this rate has been set at 3 percent. When the delivery plan is fulfilled, the material incentive fund is increased by 10 percent, and this figure is 15 percent at enterprises converted to the new economic conditions.

In 1984 the material incentive fund was reduced 5 percent for nonfulfillment of the delivery plan at the Aleksandrovka Machinebuilding Plant imeni Voroshilov of the "Soyuzuglemash" VPO; in certain cases an even more sizable reduction has been observed. Most enterprises failing to fulfill the delivery plan have had their funds reduced by 3-5 percent. But for those enterprises which have not been fulfilling fund-forming indicators or do not have a source from which to build them up, so that the material incentive fund is receiving the minimum amounts (40 percent of the plan), this measure for financial pressure does not have an effect, since in these cases the fund is not reduced for underdeliveries. At enterprises converted to the new economic conditions, where the penalty rate has been raised to 3 percent, the reduction of the material incentive fund is more appreciable. On the whole the role of financial penalties for nonfulfillment of the delivery plan is negligible. It would be advisable to reduce by 5 percent transfers to incentive funds for each percentage of nonfulfillment of the delivery plan, which will make it possible to exert more effective pressure on enterprise collectives for nonfulfillment of obligations under contracts. Here the maximum proportion of the fund's reduction should be set, say, no higher than 20 percent.

The fulfillment of assignments and obligations related to product deliveries has made it possible for many enterprises to augment their material incentive fund by 10 percent, and for those converted to the new economic conditions 15 percent. The experience of enterprises has shown that instituting the supplemental transfers to the material incentive fund for 100-percent fulfillment of the delivery plan has been an effective economic lever for stimulating deliveries. It would seem advisable to preserve the supplement to the material incentive fund for fulfillment of the delivery plan in the future.

The portion of profit remaining at the disposition of production associations is the source of the supplemental enlargement of the material incentive fund for fulfillment [original reads "nonfulfillment"] of the delivery plan, and should it be insufficient, the transfer is made by reducing payments out of profit into the budget. In practice profit which under the plan was earmarked for the budget is often the source for building up the 15-percent supplement. Reduction of payments out of profit into the budget on behalf of the supplemental transfers to the material incentive fund infringes upon the interests of the budget. Only profit remaining at the disposition of production associations as well as reserves and centralized material incentive funds of higher-level organizations should be the financial source for increasing the material incentive fund for 100-percent fulfillment of the plan for product deliveries.

The Standard Regulation on Procedure for Formation and Use of the Financial Reserve of Production Associations (Enterprises), approved by USSR Minfin and USSR Gosplan for the 12th Five-Year Plan, provides that the resources of the financial reserve are also committed to increasing transfers to the material incentive fund when the plan for the volume of sales adjusted for delivery obligations has been fulfilled at 100 percent (within the limits of the amounts reserved).

In 1978 a procedure was instituted for awarding bonuses to managerial personnel of enterprises in the industrial sector so as to take into account

fulfillment of assignments and obligations related to product deliveries. If they are not fulfilled, managerial personnel are deprived of bonuses for the basic results of economic performance depending on the degree of underfulfillment of these assignments and obligations. Ministries assign to subordinate enterprises the maximum percentage of underfulfillment of assignments and obligations which if exceeded deprives managerial personnel altogether of their bonuses. For the particular enterprise it may not exceed 2 percent, and in exceptional cases 3 percent. Thus at the Kamensk-Shakhta Machinebuilding Plant of the "Soyuzuglemash" VPO of Minugleprom bonuses for the results of 1985 were not paid, since the plan for product deliveries was fulfilled at a level of only 93.5 percent.

The present procedure whereby ministries institute benefits for supplier enterprises is not conducive to the strengthening of delivery discipline. Its purport is that enterprises which have underdelivered products within certain limits (no more than 2-3 percent of the total value of the delivery) are not altogether deprived of bonuses; their size is merely reduced. These benefits have been established for an enterprise because it has not always been the only party responsible for violation of contractual obligations, and accordingly there is a need to relieve it of a part of the blame for nonfulfillment of the plan for deliveries. This situation makes it possible for the enterprise to duck responsibility even in cases when the breaches have occurred through its own fault. In our view such benefits related to bonuses might well be removed even in 1987.

Certain enterprises have committed violations in determining the volume of products not delivered, and they have accordingly hiked up the size of the material incentive fund, and sometimes bonuses are paid to managerial personnel who have not earned them. Such breaches have been found at the Nalchik Machinebuilding Plant of Minkhimmash, where the indicator of the volume of sales adjusted for deliveries was hiked up 34,300 rubles in the 1st quarter of 1984 and 67,200 rubles in the 2d.

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AGRO-ECONOMICS, POLICY, ORGANIZATION

ROSTOV OBLAST AGROPROM CHAIRMAN ASSESSES APK OPERATIONS

Moscow IZVESTIYA in Russian 15 Jun 86 p 2

[Interview with N. I. Kushnarenko, chairman of the Rostov Oblast Agroindustrial Committee, delegate to the 27th CPSU Congress, by G. Gubanov and O. Pavlov, special IZVESTIYA correspondents, Rostov Oblast: "Time Is Pressing"; date and place not specified]

[Text] [Question] Nikolay Ivanovich, we will begin with an unpleasant, but obvious, question. During the years of the 11th Five-Year Plan the oblast surrendered its positions in agriculture. The 27th party congress noted, in particular, that grain production decreased. Moreover, the productivity of animal husbandry is not high today. True, last year's drought and the feed shortage had an effect on this. However, there were and there will be droughts. Yet, Don land is certainly capable of more. Furthermore, RAPO have existed for more than 1 year. Deliveries of fertilizers and other resources have increased. Perhaps RAPO have acted without an initiative?

[Answer] You begin the conversation right away with a very complex problem, that is, you ask not one, but several questions. Well, I will try to look into this matter. With respect to grain, indeed, this is our main concern. Land, the agroprom's fixed capital, and labor resources obligate us to annually produce 7.5 million tons of grain and 630,000 tons of sunflower seeds during this five-year plan. Of course, in order to attain this--I am confident--realistic result, it is necessary to take into account the lessons of past years. You are right: There were and there will be droughts. Alas, our farming systems are not sufficiently flexible and do not fully take into consideration the characteristics of our zones. There are six such zones in the oblast. It should be stated that RAPO and, moreover, the oblast agroprom, absorbed in current affairs (after all, they, too, cannot be disregarded!), did not pay proper attention to fundamental farming problems. Nor did RAPO find themselves in relations with science. Yet, our science is prominent and has something to offer to production. Nor were we sufficiently concerned about the quality of feed, even with its objective shortage. In brief, today we guide our oblast- and rayon-level specialists to think of the future, to think broadly and actively, and to solve long-term problems, without overlooking current ones.

[Question] Excuse us, but a certain volitional approach is also seen in this. Someone must control from above the course of affairs and to think and decide for someone... Perhaps the agroprom's present economic mechanism does not make it possible to solve problems directly in labor collectives, "below," as the saying goes, and to think about improving planning, supply, and social problems "above"?

[Answer] A certain period is needed so that people--precisely people!--could comprehend everything that is new, and not simply comprehend, but transfer it to daily practice.

Here I would like to go back to the first important problem. Still, RAPO and, primarily, farms have been able to attain something in recent years. During the existence of RAPO the volume of agricultural output increased by 3.6 percent. This is not so much, but the very tendency toward growth is important. The commissioning of housing increased. The outflow of the population from rural to urban areas stopped for the first time in many years.

[Question] Somehow not accidentally we talk more and more about the role of man, the farmer. Of course, there are also other matters and we will approach them. Today, however, the reality of our affairs and plans depends primarily on man. Most likely, the reality of the reorganization will be in the hands of competent and energetic people with initiative...

[Answer] I would like to state more precisely right away: At the present stage of the agroprom's development it is not enough simply to have initiative and be energetic. It is necessary to be competent, to have thorough knowledge of one's profession, to keenly feel the new and advanced, and to be able to captivate and convince others and to organize the collective's labor. The formation and reduction of the administrative machinery is not an easy stage. It was necessary to eliminate duplication, which flourished like cornflowers in the grain field of the lackadaisical agronomist under the old structure and system of mutual relations. Specifically for us this meant the abolition of hundreds of official units and the selection of jobs for them according to their abilities and state of health. We followed three directions: We formalized pensions for some specialists, we recommended others, at their wish and choice, directly to kolkhozes and sovkhoses (at the same time, specialists, as a rule, did not lose in terms of their wages and way of life), and advised still others to go, according to their specialties, to other sectors, but the agroprom retained and reinforced the backbone of the personnel. We approached the selection of personnel thoughtfully and without excessive nervousness and haste. Party and Soviet bodies discussed every person. However, some time has passed and we understand that not everything is fine in this complex matter. It is already clear that some people are missing. In some cases we have made mistakes. This is life, life at a new level of tasks. We will think...

[Question] Let us continue this topic. In fact, duplicating subdivisions have been liquidated and there has been a cut in personnel. But what has changed in the structure of management and in its methods?

[Answer] For example, a unified system of material and technical supply is being developed. It has been formed on the basis of abolished oblast administrations and departments. The functions of the state inspectorate in the procurements and quality of products and of administrations of light and food industry and of land reclamation and water resources have been reexamined. The latter is very important for us: In the oblast there are more than 430,000 hectares of irrigated land, but the harvests on it are low. It was impossible to find the culprits, because some built the system poorly and others operated it in a slipshod manner. Now no one can be blamed for unfinished work. Everyone must soundly think not about hectares and cubic meters of water released for irrigation, but about quintals and tons of wheat, corn, rice, cucumbers, tomatoes, fruits, and grapes. Managers of administrations of grain products, land reclamation, forestry, and the fish industry and of the Oblast Union of Consumer Cooperatives, first deputies of the chief of the financial division of the oblast executive committee and of the manager of the oblast office of the State Bank, chairmen of RAPO councils, and scientists became members of the board of the agroindustrial committee, in addition to the chairman and his deputies, of whom we have nine--for sectors and directions.

However, don't think that, if there are nine deputies, it has become easier for me, or for them. The volume of work, the level of interrelations, and output in sectors are all different. I would permit myself such a careless, perhaps, thought that the oblast (I stress, oblast) agroprom resembles the former Sovnarkhoz in some things. Sovnarkhozes had many disadvantages, but also advantages. First of all, the combination of the efforts of local soviets and departments. However, life does not repeat anything twice in the literal sense. Here are the differences. Nevertheless, there is something common: We are now much more responsible for our territory, for the oblast.

[Question] And if to be more specific?

[Answer] You know that there is a firm plan for grain purchases during this 5-year period. For other agricultural products only the volumes of deliveries to centralized stocks will be assigned. Farms in the Don area should produce 7.5 million tons of grain. The sale to the state is within 3,100,000 tons annually. What is left in the oblast is sufficient for seeds, for payment in kind to kolkhoz members and sovkhos workers, and for fodder purposes. These figures are real for the oblast's farms, reflecting the objective state of agricultural production to date. In particular, fallow--we now have more than 850,000 hectares of fallow--and intensive technologies enable us to gather such a quantity of grain. Calculations show that this year the oblast can produce no less than 1 million tons of strong wheat, which will additionally place almost 10 million rubles of net income in the till. There is a direct benefit in actively engaging in the cultivation of superior-quality grain.

You see, once again there is something to strive for. This also concerns meat, milk, and vegetables. We hope that local soviets can give invaluable assistance to the agroprom in its striving to provide the oblast's population with its own food.

Incidentally, our oblast does not expect any subsidies "from above." We also see the potentials for an increase in the production of food products in the development of subsidiary farms of industrial enterprises and consumer cooperatives and of private farms of workers and kolkhoz members. I will cite only one example: The potatoes grown in private gardens in the oblast make up 80 percent of the total potato production--this is more than 100,000 tons.

[Question] As we understand, the role of the oblast's agroprom in providing its population increases. Obviously, now there will be also more possibilities for an exchange of products among regions. There is more independence in the solution of many problems.

[Answer] No, not everything is so smooth... Here we are talking about planning APK development in a single line. However, plans for many APK enterprises for this year and limits were assigned through presently abolished departments. Today we can no longer live and work for an entire year according to old criteria--we will miss the time for a fundamental reorganization. In spring the APK staff has begun to actively study and correct--more accurately--interconnect the resources, funds, and finances of their subdivisions. As of the second half of the year the agroprom should operate as a single economic organism. Corrections will also be taken into consideration during the defense of funds for 1987 with a view to fully changing over to a unified planning of the development of all APK subdivisions. It cannot be denied that by no means everything is perfect in the agroprom. For example, it is not clear to us why the Scientific Production Association for Agrochemical Services to Agriculture--one of the most important APK partners--has retained its autonomy. Now, when intensive technologies are being mastered and a great deal depends not on how many fertilizers are applied per hectare, but on how and when, this partner is on the side. Plant protection agents mean a great deal and it is also important to apply them at the proper time and competently. Another extreme situation: Rostovselstroy and Oblkolkhozstroy are seemingly under our "roof," but they live in their own way. They have become accustomed to building more in cities and big rayon centers, while many kolkhozes and sovkhoses are built by the economic method. There are also sufficient problems with the processing of products.

[Question] However, all these are problems, from which the agroprom cannot and should not get away. Not much time has been allotted for their solution. The agroprom should give more products both to the country and to its own people.

[Answer] If we talk about the interconnection of interests in the agroprom and of the interests of the oblast's population, I must say that, to improve the food supply for its own territory, the agroprom has undertaken the control of a balanced development of all APK sectors and tries to carry out a reliable "interface" of kolkhozes and sovkhoses with the processing industry. At the same time, it is, of course, necessary to develop the material and technical base for the storage and transportation of field and farm products. There is a lot of work. Suffice it to say that, owing to the shortage of reliable storage facilities alone, the oblast's farms annually lose from 15 to 20 percent of the harvest of vegetables, fruits, and potatoes. Inefficient



hauling of livestock to meat combines bring millions of losses every year. The improvement in economic methods of farm management and the introduction of advanced forms of labor organization and wages become some of the main directions for us.

The agroprom is responsible for the introduction of proper order in capital construction in rural areas, for the development of machine systems, for the efficiency of selection, and for an efficient utilization of land and every kilogram of fertilizers and fuel... Can we really continue to put up with such a fact, when 35 large poultry factories have been built in the Don area, but, in fact, more or less normal conditions have been created at only four of them? At the rest there is a shortage of electric power, heat, and water... Weight gains are one-half below the norm. Only the elimination of defects will enable us to additionally obtain 15,000 to 17,000 tons of meat in the same areas annually. However, thinking about the future, we must immediately roll up our sleeves and introduce proper order at every section through diligent management.

[Question] What is, you might say, your main principle as a manager?

[Answer] Complete economic independence--this, essentially, is the application of Lenin's idea of the food tax under our conditions at the present level. As the experience of past years showed, regulation of the manager's every step, disregard for stable and substantiated planning and principles of self-support, obliteration of sound levers of material interest, and minimization of responsibility had an effect on the economy and gave rise to dependence and mismanagement... We must work with full efficiency in order to break unfavorable tendencies, thinking both about the development of the territory and about the good of every collective.

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AGRO-ECONOMICS, POLICY, ORGANIZATION

STAVROPOL EXPERIMENT PROGRESS REVIEWED

Moscow SELSKAYA NOV in Russian No 9, Sep 86 pp 6-9

[Article by E. Maksimovskiy: "Experiment In Stavropol"]

[Text] Independent and well-founded -- from the report by M.S. Gorbachev during the June (1986) Plenum of the CPSU Central Committee: "Thanks to measures aimed at improving the system of administration and management, economic and organizational prerequisites have been created for raising the work activity of rural workers."

Henceforth the kolkhozes and sovkhoses in Stavropol Kray will pay their own way. In complete conformity with the well-known saying: "One dances according to his ability." Perhaps this popular saying may seem crude to some, but one fact must not be forgotten: a dance at state expense costs society dearly.

What is the essence of the Stavropol experiment and why is it of such extreme importance with regard to the subsequent fate of the country's agroindustrial complex? It has been established that the kray's farms operate on the basis of self-repayment; that is, all expenditures are reimbursed and development is achieved exclusively by means of internal resources. But where do these resources come from? Grain, livestock husbandry products and vegetables are sold to the state, surplus products are brought to market and money is earned -- they thus procure the means for living, for paying manual and office workers and for building. Certainly, the banks will not refuse to extend credit to those participating in the experiment. But they will sternly require them to make repayment in accordance with the established schedules.

Traditionally, this agrarian zone has been associated with highly developed and more progressive ideas. It was by no means an accident that it was precisely here, long before the decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Further Improvements in the Economic Mechanism for Management in the Country's Agroindustrial Complex," that the long-running experiment at the Stavropolskoye Broiler Association was started.

A check was carried out here for a period of 3 years on the possibility of operating under conditions of complete self-repayment. This period was deemed adequate for drawing conclusions. During one particular interview (and such

interviews are now being conducted on a more frequent basis), the general director Viktor Ivanovich Postnikov discussed the essence and realization of the entire package of high quality new economic ideas as follows:

"We have stable plans for 5 years. A number of products have been designated which we must sell to the state, withholding 5 percent from profits and also for the wage fund -- 1.7 kopecks per ruble of product produced. We plan all of the remaining indicators ourselves. Such planning has radically changed our economic psychology. For example, earlier it was considered unprofitable to economize in use of the wage fund. It is a known fact that the organizations attempted by all means to expend this fund by the end of the year -- otherwise it would be taken away from them. Today we operate differently: surplus expenditures reduce the income and, it follows, the material incentive fund. Earlier, the wage fund was not always handled properly. Today, over a period of 3 years, 770,000 rubles have been saved. This money is being redistributed within the collective for the purpose of encouraging other workers. We are realizing economies in the use of raw materials, feed and electric power. We sold 120 surplus motor vehicles, tractors and other items of equipment for 1,300,000 rubles."

Profitability increased by more than twofold and labor productivity by 23 percent. More than 100 million rubles worth of profit were obtained.

In the broiler association there are no wage rates or bonuses in the usual understanding of this word. And there is no wage levelling.

"Even the wages of our cleaning personnel are dependent upon the output" commented Postnikov, "An appropriate coefficient has been developed for each working position. The wage amount is now based upon earnings."

The Stavropolskoye Broiler Association has rejected state subsidies. Postnikov offers no theoretical basis for this action, but rather he simply explains:

"We decided to see if we could get along without bonuses, at our own expense and not at state expense."

It turned out that it is indeed possible.

Postnikov considers self-support to be something more than just making ends meet. He views it not as just a summation of certain economic actions but rather as the "embryo" for vital changes in social policies, changes which are strongly conditioned by the link between the quality of life and the quality of labor.

"Usually the kindergartens are financed by means of the state budget," stated Viktor Ivanovich, "We immediately undertook to maintain them ourselves. We are spending approximately 1 million rubles. This money was earned by the collective. I am confident that we will be reimbursed."

Under the conditions of economic self-support, the personnel view themselves as owners of the enterprise and under the conditions of social self-support they consider themselves to be masters of life.

It is obvious that nobody rejected this truth earlier. Letters were written containing complaints and demands (yes and they are still being written, as borne out by the editorial board's mail): "Build us a club and a kindergarten, money is not being allocated for planning such facilities or for construction." The collective of the broiler association is proving that it can do all of this work itself. Parasitical tendencies were eliminated and it became necessary to merely link the quality of life with the quality of labor in an intelligent manner.

Commencing 1 March of this year, a new impulse was given to the experiment being carried out at the Stavropolskoye Association. Its collective was authorized to sell products through its own trade network and at prices established by the association's board of directors."

This is a higher level of independence. I asked Postnikov if the usual mistakes made by the state traders are being repeated, since the interests of these individuals are at variance with those of the customers. I heard the well known phrase "I do not wish and I do not want" in Stavropol state and cooperative stores.

But Postnikov has new and bold plans:

"We will meet the needs of the customers. We will carry out the work in a manner such that the customer will necessarily want to purchase our tempting goods. We will create plants for the processing of broilers. We will smoke and boil them, cook them on a spit, package them handsomely and present them in canned form. I believe that our traders will be vitally interested in the customers. This will be especially true in view of the fact that the quality of their life will be directly dependent upon the quality of their labor. We will not stand on ceremony: if you do not wish to trade -- go with our blessing!"

One Hundred Thousand Remained in the Cashbox

From the political report by the CPSU Central Committee to the 27th party congress: "The principal intention consists of opening up an expanse for economic methods of management and to expand considerably the independence of the kolkhozes and sovkhoses and raise their interest and responsibility for the final results."

One at times hears the statement being made that the Stavropolskoye experiment cannot be fully employed under other farm conditions. Yes, this experiment is not beyond question. I was told that such work could not be carried out at just any enterprise and what would happen if there were hundreds or even thousands of such enterprises? Moreover, poultry raising is a specific branch: the raising of broilers is being carried out on an industrial basis and for all practical purposes is not dependent upon weather conditions. I was told that it would be a completely different situation if kolkhozes and sovkhoses at which the operational results of a farmer or livestock breeder are dependent upon many factors, including unpredicable ones, were converted over to self-support and self-financing. What would the work situation be like in such instances?



Exaggerating somewhat, I transmitted these doubts to the 1st secretary of the Grachevskiy Rayon Party Committee Valentin Konstantinovich Chabanov. One had to see how the experiment was taking hold at a farm. To my surprise, Chabanov advised me to go not to the best -- the Zavety Iliche Kolkhoz -- but rather to the weakest one -- the Kugultinskiy Sovkhoz.

It was a gloomy winter day on which the recommendation was made to have Sotnikov take charge of the Kugultinskiy Sovkhoz. Sotnikov at the time was the chairman of a kolkhoz and the Kugultinskiy was located at some distance. The kolkhoz also appeared to Fedor Afanasyevich as being in less than the best condition and he wondered how much time would be required to improve its status. And the Kugultinskiy Sovkhoz was an extremely neglected farm. But such recommendations cannot be rejected -- the party card will not permit this. And Sotnikov became its director.

The farm was referred to as a swine husbandry establishment and it produced grain, sunflowers, milk and wool. Sotnikov himself would not have known how to extricate the Kugultinskiy Sovkhoz from its predicament were it not for the fact that his assignment coincided with the commencement of the Stavropol experiment. One could only appreciate the undisguised satisfaction of Fedor Afanasyevich as he informed me of the situation:

"A greater degree of independence appeared. Earlier, there would have been an early morning phone call from the rayon center: you have sown only 200 hectares and your neighbor has already completed 500. And they would express their dissatisfaction. I would explain that my land had not yet ripened and that my neighbor's land had dried out earlier. And now they say: produce your own products and inspect them. Earlier the farm leaders were interested in an understated plan. The situation has now reversed itself. We are carrying out our own planning at the present time."

Chabanov had the following to say regarding the statement by Sotnikov.

"It is our belief that the RAPO [rayon agroindustrial association] must not monitor the current operations on the farms. The RAPO is confronted with three tasks: scientific-technical strategy; the introduction of leading methods and the carrying out of large-scale measures which require the utilization of all of the rayon's resources; control over the financial status of the farms. Moreover, we view the latter condition as temporary in nature. It will take place only during the initial stage in mastering the new economic mechanism."

The independence of the sovkhov and its director would turn out to be a fiction if the experiment did not provide each worker with independence and encourage him to work in a conscientious manner, "with the same diligence he displays on his own private plot," as stated by one of the pig-tenders. The female workers here speak out very boldly. "You will eat if you work," "He who sows and winnows will never become impoverished" -- such are the sayings uttered by them. Unfortunately however, they themselves often forget these wise sayings when crossing the threshold of the sovkhov farm.

Several months passed following the commencement of the experiment. The livestock facilities are the same, the young pigs are from the same strain and the female workers are the same. However, the results it would seem have almost

doubled. What changed? The brigades were converted over to a contractual basis and a direct relationship was established between earnings and the results of labor. And this took place in all sectors of sovkhoz production. During the first 3 months of operation under the new system, the motor vehicle garage, which was always unprofitable, produced a savings of 11,000 rubles. Prior to converting over to the contractual method, the garage's workers tried to escape from carrying out transport operations to the extent that they could, the very operations for which the organization was created. The sovkhoz ordered hired transport. The garage then refused to carry out a lease on the side. The decision was made to carry out the work. The 100,000 rubles intended for a foreign carrier remained in the sovkhoz's cashbox. Once again, what changed? Simply nothing: 70 percent of the funds saved is being distributed among the motor vehicle garage's workers depending upon their labor participation.

The sovkhoz will settle accounts with them at the end of the year. But the sovkhoz must still earn this money. Because those people are independent who operate on a valid basis. In the sense of ability to justify their actions and in the sense of material support.

The faith of people can change life and work for the better using internal resources -- this then is the chief return which the organizers of the largest economic experiment in the history of our collective agriculture hope to obtain. The faith of people converts the energy of intentions into the energy of actions.

#### Money -- For Goods

From a telephone telegram by Lenin to the People's Commissariat of Finance on 1 February 1922: "I believe that trusts and enterprises should operate on a cost accounting basis so that they can be held responsible for unprofitable operations by their enterprises."

If a collective or an individual worker receives more for work performed than the work is actually worth, then we are dealing either with charity at the expense of society or with a lack of discipline in the economic mechanism.

It sometimes happens that a farm does not process its seed -- but who suffers from a material need for this? The worst worker, provided he is not on a drinking spree, is well fed, clothed and has tobacco to smoke. Writer Fedor Abramov was one of the first to discuss the immorality of wages based not upon labor, not upon the final result and not upon marketable output. It is recalled how the hero of his novel "Dom" /Home/, Mikhail Pryaslin, attempted to shame a tractor operator who had carried out sowing work on a frozen field. What was that individual's reply to him? Such a worker, if he has an opportunity to drink, will in fact drink and abandon his livestock without feed and if he has an opportunity to do nothing -- he will in fact do nothing. In the village of Pekashino, Sunday came to be viewed not as a day off but rather as a day for lying around and doing nothing.

The Stavropol experiment is aimed at returning individuals to the land. Public ownership of the means of production ceases to be anonymously general in nature

and it is actually assigned to groups of workers who operate jointly and turned over to them on a lease basis. Does the farm need a tractor? It must make the purchase itself. Fertilizer? For goodness sake, is the money available?

It was only recently that material supply, capital construction and the development of socio-cultural and domestic measures were financed using many sources, among which bank credit for a farm was far from being the chief source. Where can funds now be obtained? The experiment does not abolish farm financing using other sources. Indeed, equipment must be procured, capital construction must be carried out and socio-cultural and domestic measures must be continued. Earlier the purchase prices for livestock husbandry products took into account only the repayment for production expenditures. Thus it turned out that the external appearance of a village, the capital-labor ratio and the comfort level were not directly dependent upon how people work, but rather they were dependent to a greater degree upon what they would receive or obtain from the centralized funds. The kray or rayon organizations could supply or not supply these funds to a farm, whichever it chose to do. It would depend upon the means at their disposal.

Today the output "determines" the amount of funds a farm will receive for satisfying its needs, by means of bonuses added on to the purchase prices, with the aid of which a collective is able to finance itself. The greater the output produced, the more free capital will be available at a sovkhos, capital which will be disposed of by the labor collective and nobody else.

Under these conditions, a change takes place in the very concept of planning. There is no need for higher authorities exercising strict control over the activities of farms, thus forcing them to use hidden resources. Planning begins from below owing to the fact that a farm obtains all of the logistical support needed based upon its control figures. It creates the foundation for carrying out its own plan and thus it determines the volume of "additional financing." When I was told by the Grachevskiy Rayon Party Committee that the Kugultinskiy Sovkhos had increased its 1986 plan by 70 percent compared to its previous plan, an idea flashed across my mind: an adventure! But within a matter of 15 minutes, Sotnikov proved that it was not an adventure but rather an economic computation. A tense plan is profitable. Contractual collectives are interested in maximum results. And this requires appropriate resources, which a sovkhos receives in advance in behalf of its plan. The carrying out of the "adventurous plan" proceeded exactly according to schedule. And this occurred at a farm where formerly a negative balance was maintained from year to year.

In Stavropol, I became immersed in an astonishing atmosphere of general creative search and constructive criticism of hardened stereotypes. Thus, it was perhaps with the same degree of misunderstanding that many of my associates encountered the question: and what will happen if the farm burns down? What if there is an overexpenditure of fuel or machine time, or if less is earned than is paid out? I was told that this should not be the case. And immediately we understood that this was not the answer. All of us could only be happy if this did not occur. But independence still does not guarantee profits. In such a case, the question of responsibility inevitably arises. But who can be held responsible? The chairman or director? The chief specialists? The brigade

leaders? How can it be determined who made a contribution to the common granary? The conditions of the experiment are such that they will not tolerate bankruptcy or even suspect it. The plans allow for a negligible shifting of resources among the intra-farm funds; they are capable of mending a tear, but what if the discussion has to do with large losses? Again a hand is extended towards the state, hoping that it will pay for completely unsatisfactory work and inefficient use of soil fertility, equipment and fertilizer.

One cannot discuss responsibility generally without deciding upon an objective-material value for it. The question is not one of strict punishment for damage inflicted upon society, but rather it has to do with the mere existence of such damage. Responsibility implies a need for and obligation to answer for one's own actions. There can be no independence in the absence of responsibility. A breakdown in this area will bring about the appearance of parasitical tendencies and reliance upon rich uncles.

Collective ownership assumes collective responsibility and particularly material responsibility. Hence, if a farm has sustained losses, those personnel, teams and brigades which did their share will be most offended. What must be done in order to ensure that the self-support of a farm becomes self-support for each worker individually. In all probability, additional thought must be given to the intra-farm structure and cost accounting relationships and material responsibility must be present at each working position.

At the present time, a kolkhoz or sovkhos sells its products to the state. But why is it that a farm does not purchase products from its workers, who are joined together in primary work groups according to types of activity? The task of management in this instance consists mainly of providing logistical support for the contractual collectives. A curious psychological effect is possible: the production results will turn out to be less dependent upon the capability of a vacillating management. Common sense dictates that a natural self-regulation of economic processes will ensue.

Thus the Stavropol experiment presents a rare opportunity for creatively examining the functions of all agrarian elements without exception and selecting them anew. Within the village, good owners are proceeding in this manner with their strong and reliable huts: they are dismantling their "nests" by rows of logs and inspecting and tapping upon each log.

The experiment is a search for new developments and a perception of new developments. And the perception of new developments is training.

### Everybody Is Learning

From the decree of the CPSU Central Committee and the USSR Council of Ministers entitled "Further Improvements in the Economic Mechanism for Management in the Country's Agro-Industrial Complex": "Considerably more attention should be given to improving the skills of personnel in the mass professions, in the interest of ensuring that each worker masters the principles of economics and knows his job to perfection."



I posed the same question to many party and economic leaders: "What was the most difficult aspect in introducing the experiment?" The reply surprised me in terms of its content: "The low level of economic training possessed by many agricultural specialists."

This is what the organizers of the experiment encountered. Their "associates" were the same people who had to breathe life into the experiment's program and they were not always familiar with what was expected of them. It was not a new development -- for a rather long period of time, they preferred the forms of the subjunctive mood which, as is known, are burdened by the particle "by": "They would have acted so if they had been so instructed." They were told: "You are now the boss and you can make the decisions yourself!"

Everything is simple in grammar. Abandon the particle "by" in a letter and everything is easy. Economic grammar is more complicated; it assumes the ability to foresee the consequences of one's decisions.

Everyone had learned. Even workers attached to the kray party committee, with whom the 1st secretary and specialists of all ranks conducted exercises.

"Personnel retraining was a function which we chose to undertake for ourselves," stated the 2d secretary of the CPSU kray committee N.M. Yeremin.

I understood from the explanations provided by Nikolay Maksimovich that a system of instruction had been created in the kray which, distinct from the traditional one, did not deal with the jagged truth, but rather was aimed at developing a theoretical type of reflection. There are not enough recipes for all of the situations encountered in life. Out on a field, an economist is both the rector and the NII /scientific research institute/. He thinks for himself and he decides for himself.

The training program for the experiment in Stavropol lasted 2 years: by groups of professions, by zones and by categories of workers. The training is continuing, only now in a new direction -- the initial results of the experiment are undergoing mass analysis: failures are being interpreted from a theoretical standpoint and ideas are being checked in actual practice. A constantly active "brainstorm" is taking place in Grachevskiy Rayon. Enthusiastic people gather together on Saturdays in the office of the 1st secretary of the rayon party committee, where they discuss the different variants for the economic situations and evaluate the effectiveness of decisions adopted and rejected. The latter are of equal importance. Under certain conditions, the boldness of an act lies not in jumping into an unknown river from a steep shore, but rather resisting the temptation of becoming celebrated for an innovative action.

The future will be controlled by those who foresee the consequences. Under the influence of the experiment at Stavropol, the priorities in public opinion are shifting and the interests of social groups are developing on a different material base. A kray laboratory for sociological studies, which includes workers from VUZ scientific communism departments, is in operation. Its collective, headed by Sergey Kharitonov, is studying in detail the acceptability of the new managerial conditions to the rural population. A mass interrogation of peasants at the Rodina Kolkhoz, a chronically backward farm, brought about a review of the activities of the agroindustrial complex in Aleksandrovskiy Rayon.

The concept of "continuous instruction" is being introduced into social consciousness and into subunits of the kray's agroprom. Within the Nivy Stavropolya Scientific Production Association and jointly with large scientific centers throughout the country, an experimental system for operational control involving the use of personal computers is being created. Complete computerization will be carried out in Shpakovskiy Rayon: brigade and farm workers will commence transmitting information directly to memory units of the computer center and, when necessary, they will draw information from this memory bank. We already have in mind this present five-year plan. Thus, those individuals who are now plowing the land and milking cows will master the science of electronics, with no allowances being made for age. Time is of no consequence when we are learning.

Will the experiment alone raise the need for continuous instruction? Will the new economic lessons be beneficial only to the workers in Stavropol? The success of any endeavor is determined by the personality of a worker. And the extent of an individual's personality is directly proportional to the knowledge and ability he displays. There is a popular saying which holds that "One scientist is the equivalent of three non-scientists."

Full use must be made of the cost accounting principle.

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AGRO-ECONOMICS, POLICY, ORGANIZATION

BETTER TRANSPORT, STORAGE, PROCESSING OPERATIONS NEEDED

Moscow SELSKOYE KHOZYAYSTVO ROSSII in Russian No 8, Aug 86 pp 2-4

Article by V. Naumov, 1st deputy chairman of RSFSR Gosagroprom: "Policy of Integration"/

Text The most important factor in agriculture is that of time. The same can be said regarding enterprises of the processing industry, which are concerned mainly with highly perishable agricultural products that are difficult to transport. Thus an important goal of reorganization of the administrative system for the agroindustrial complex is that of integration of agriculture and the processing industry, locating these enterprises closer to the production areas and establishing closer relationships between the kolkhozes, sovkhoses and processing workers. And the new economic mechanism is creating real prerequisites for accelerating a solution for the problem of integration.

Today all of the agroprom enterprises, regardless of their branch affiliation, must participate actively in agricultural production, in the crop cultivation processes, in improving the operation of equipment and in the procurement, processing and storage of products. At the same time, the farms themselves are now unable to develop production operations in an intensive manner in the absence of stable economic relationships with their partners in the agroindustrial complex, relationships which effectively influence the final results.

A definite amount of experience in the integration of agriculture with industry has been accumulated in the Russian Federation. And in those areas where this work is being carried out in a creative manner and with mutual interests being taken into account, the results speak for themselves.

In recent years the party and government have handed down a number of important decisions aimed at developing and strengthening direct relationships to the maximum possible degree. Yes and life itself persistently requires a further strengthening of integration. Towards this end, construction is being carried out at kolkhozes and sovkhoses on roads and spur tracks leading to farms and on warehouses, storehouses, loading and unloading platforms, refrigeration units and storage containers. Purposeful work is being carried out in connection with raising the quality of output. In 1985 the kolkhozes and sovkhoses earned approximately 2 billion additional rubles as a result of having improved the quality of their milk alone. This means that each ton of milk sold produced 57 additional rubles. This was a fine increase! In turn, this

improvement in quality had a positive effect on the production of goods and on the economies of dairy industry enterprises on the whole. A noticeable increase took place in the proportion of high grades of animal oil and cheeses of all types and the assortment of dairy products was expanded. Overall, the dairy industry enterprises realized 761 million rubles worth of profits during 1985 instead of the 747 million called for in the plan. Compared to 1981, the profits had increased by 109.5 million rubles or by 16.8 percent.

During the years of the 11th Five-Year Plan, the volume of centralized shipments of livestock husbandry products, with the products being accepted directly in the production areas, increased by 29.8 million tons or by a factor of 2.6 compared to the 10th Five-Year Plan. The acceptance of poultry at the sites and centralized shipments of livestock from the farms increased during this period from 100,000 tons to 2.2 million and the proportion -- from 3 to 33 percent.

Again this year the volumes of goods being accepted in the production areas will continue to increase. During the first quarter alone, the increase in milk amounted to 27 percent compared to last year. In the process, 84 percent of the milk was delivered as being of 1st grade quality and in a refrigerated state -- 71 percent, figures which are somewhat higher than those for the previous year. The acceptance of poultry at the sites and centralized shipments of livestock increased by 30 percent and amounted to 34 percent of the overall volume of animals processed. The direct acceptance of milk at kolkhoses and sovkholes in Stavropol and Khabarovsk krais, the Checheno-Ingush ASSR and Murmansk Oblast, where this work has practically been completed, is well organized. More than 50 percent of the milk is being accepted on farms in Arkhangelsk, Volgograd, Leningrad, Kostov, Omsk and Tyumen oblasts.

At the same time, insufficient attention is being given to this important work in an overwhelming majority of the krais, oblasts and autonomous republics. In some oblasts, the centralized shipments do not exceed one tenth of the overall volume of procurements. And this did not occur because of insurmountable difficulties arising in connection with solving the problem, but rather, as the saying goes, it was a case of no pains no gains. And indeed the new agroindustrial organs in the various areas have been granted extensive rights and authority and they must utilize them in an active manner.

The experience accumulated in Belgorod Oblast is deserving of fixed attention in this regard. Here all partners in the agroindustrial complex were enjoined to participate in carrying out a special purpose comprehensive program and specific schedules for carrying out the work and control over the implementation of plans in the various areas were established. All of this made it possible, during the past 3 years alone, to build and modernize 247 dairy units, install 447 refrigeration units and 348 tanks for the cooling and storage of milk and to build more than 800 kilometers of intra-farm hard surface roads.

At the present time, 97 percent of the farms have been converted over to direct relationships for the acceptance of milk throughout the oblast and 93 percent of the milk is being sold to the state as 1st grade quality, including 92 percent in refrigerated form. In the interest of ensuring the continuous acceptance of products at the creameries, additional lines have been installed



and special platforms and facilities for the washing and steaming of tanker trucks have been established. In the interest of ensuring that products are shipped from the central dairy units of kolkhozes and sovkhozes in a timely and rhythmic manner, a specialized motor transport column has been created. This column combines a portion of the specialized vehicles made available by the farms with the transport vehicles of the dairy plants.

Highly skilled specialists are required for adjusting and servicing the refrigeration units and other items of complicated equipment. Within the oblast, they are no longer waiting for assistance to be provided "from on high," but instead they have organized personnel training at the sites. The drivers of tanker trucks and kolkhoz and sovkhoz laboratory workers had undertaken and passed an appropriate course at enterprises of the dairy industry and training was provided for refrigeration unit machinists at a training combine base. For the purpose of maintaining the dairy units of rayon agroindustrial associations in a constant state of technical readiness, special sectors have been organized for servicing them. Roughly 347 trouble shooters have been trained for serving in these sectors.

How have the Belgorod workers profited from the reorganization of the dairy branch? According to last year's results, the kolkhozes and sovkhozes earned approximately 13.7 million additional rubles as a result of having improved the quality of their milk. During this period, approximately 200 transport units, 400 drivers and just as many forwarding agents, who earlier accompanied the milk, were released and made available for other work. The resultant savings amounted to more than 2 million rubles. At the processing enterprises, a sharp reduction was noted in the idle time of vehicles waiting to be unloaded, since the milk was being delivered according to schedule. The use of large trucks became possible. As a result of the reduction in idle time alone, the transport expenditures of the processing industry declined by almost 700,000 rubles.

Experience has been accumulated throughout the oblast in the centralized shipping of livestock and poultry. Last year it amounted to more than 50 percent of the overall volume of procurements. The work is carried out based upon daily schedules agreed upon earlier for livestock deliveries from the farms. The livestock are weighed in the various areas, after which the meat combines are responsible for their proper protection.

Examples of strong and mutually advantageous collaboration between kolkhozes and sovkhozes on the one hand with enterprises for the processing of field crop husbandry products on the other can also be found in a number of regions in the Russian Federation. For the most part, there are three types of such integration. The first type -- a number of farms serve as constant suppliers of fruit, vegetables and other farming products to large processing enterprises. Ten farms in Krymskiy Rayon in Krasnodar Kray, which supply products for the Krymskiy Order of Lenin Canning Combine, serve as just such a raw material zone with a guaranteed delivery of raw materials. The combine is a highly specialized enterprise for the production of tomato paste, tomato juice and Zelenyy Goroshek canned goods. Its capability is 270 million standard cans annually.

Direct relationships have existed for many years between the Sheksna Flax Plant in Vologda Oblast and farms engaged in the production of flax. The close collaboration established between the producers and processing workers has been economically advantageous to the farms, which receive considerable additional payments for high quality in the products which they supply, and also to the plant. During the 1981-1985 period, the plan for flax fiber purchases was fulfilled by the plant by 104 percent and that for flax seed -- by 138 percent.

Fine business-like relationships have developed between the beet growers in Kochubeyevskiy Rayon in Stavropol Kray and the Erken-Shakhar Sugar Plant. The schedules for digging up the beets and transporting them from the fields to the acceptance points are being observed in an efficient manner. The farms furnish assistance to the plant during the period devoted to the mass procurement of beets and the plant in turn assists the farms by supplying personnel during the crop cultivation period and by supplying the necessary equipment.

A second type of integration and one which has entered into more widespread use recently is that of sovkhoz-plant integration. A typical example is the Kavkaz Sovkhoz-Plant in Stavropol Kray. Here a sovkhoz and a canning plant operate under the same management. The sovkhoz has 1,170 hectares of arable land, including 910 hectares of irrigated land. The production of vegetables amounts to 16,000 tons and the plan for delivering vegetables to the state -- 15,000 tons. The planned capability of the Izobilnyy Canning Plant, which is included in the structure of the sovkhoz-plant, is 38.5 million standard cans. With no increase in the number of workers, but based upon agroindustrial integration, technical re-equipping and the extensive use of economic levers, the plant increased its production of canned fruit and vegetables to 45 million standard cans during the years of the past five-year plan. The profit amounted to more than 1.3 million rubles. It bears emphasizing that this enterprise operated at a loss prior to the start of its joint operation with the sovkhoz.

The third stage of agroindustrial integration, in which a department for the processing of internally produced raw materials is organized within the structure of a kolkhoz or sovkhoz, is equally as widespread in use. A good example of this is the Krasnyy Sad Fruit Sovkhoz in Rostov Oblast. Here there are 2,248 hectares of perennial plantings. Fruit production last year amounted to 11,270 tons against a plan which called for only 9,819 tons. Operating year round, the department produces 12 million standard cans of fruit products, a considerable portion of which is exported. In 1985, the department produced 1 million rubles worth of profit for the farm. Roughly 180 workers, mainly women, are employed in the sovkhoz's canning production operations. Similar departments are also operating on a profitable basis on a number of farms in the Dagestan and Tatar ASSR's and in Belgorod, Lipetsk and some other oblasts.

It bears mentioning that the creation at the kolkhozes and sovkhozes of departments for the processing of agricultural products lowers noticeably the severity of one particular social problem -- the retention of young women in the rural areas.

However, notwithstanding the apparent improvements in the integration of farms with enterprises of the processing industry on the whole, the rates of

development and intensification for this process are still not in keeping with the requirements of the times. The agroindustrial committees and RAPO's /rayon agroindustrial associations/ in a number of republics, krays and oblasts and some subunits of RSFSR Gosagroprom are only slowly reorganizing in this direction. Their operational style and methods do not conform to the instructions handed down during the 27th CPSU Congress for accelerating a solution for the problems of integrating agricultural production and the processing branches and actively searching for the means for improving economic relationships among partners.

Less than 25 percent of the milk is being accepted on site at farms in Sverdlovsk, Perm, Kaliningrad and Penza oblasts and in the Buryat and Tatar ASSR's. Only one tenth of the livestock and quite often even less are being shipped on a centralized basis from farms in Novosibirsk, Omsk, Kirov and Vologda oblasts and the Kaluyk ASSR. Owing to a low level of organizational work during the first quarter of this year in Astrakhan, Smolensk, Yaroslavl, Kemerovo and Novosibirsk oblasts, Krasnodar Kray and the Tatar ASSR, the volumes for the centralized shipping of livestock from farms even declined. The acceptance of milk on site also declined for enterprises of the dairy industry in Vologda, Pskov, Bryansk and Kurgan oblasts, Krasnodar Kray and the Dagestan and Udmurt ASSR's. Proper attention is not being given in all areas to the construction and modernization of enterprises of the dairy industry. Thus milk purchases in the Chuvash and Mari ASSR's during the past five-year plan exceeded 5 percent, while the production capabilities for processing it, even in the face of an acute shortage of such capabilities, increased only negligibly.

The agroindustrial committees in a number of oblasts underestimated the need for rapidly converting the farms over to the delivery and acceptance of products in the production areas and the measures developed by them for converting over to the progressive method for product procurements are not in keeping with the modern requirements.

Thus, in Kirov Oblast, the plans call for the conversion over to centralized shipments, by 1990, of only 8 percent of the overall volume of livestock to be delivered to meat combines and for up to 40 percent of the milk to be accepted directly on the farms. For Vologda Oblast, the figures are 37 and 73 percent respectively and for Irkutsk Oblast -- 31 and 67 percent. Is this correct? The agroindustrial committees of oblasts, krays, ASSR's and RAPO's must reexamine and define more precisely their all-round programs for the preparation and conversion of kolkhozes, sovkhoses and processing enterprises over to the system of delivering and accepting products in the production areas, taking into account the mandatory completion of this work during the 1986-1989 period. The existing raw material zones for the processing enterprises must be thoroughly studied and the plans for their rational placement must be reexamined in the interest of ensuring that they are close to the production areas. In the process, the preferential construction of small and medium size enterprises should be borne in mind.

For the purpose of unconditional fulfillment of the task concerned with completing the conversion over to the acceptance of products in the production areas, it will be necessary to increase the allocation of capital investments

for the modernization and construction of new processing enterprises, to accelerate the construction of hard surface intra-farm roads and to increase deliveries of the required equipment to the processing enterprises.

For more effective and efficient use of specialized transport, a solution should ideally be found for concentrating it and for creating motor transport columns (detachments) at the motor transport enterprises of RAU's and milk trucks -- at enterprises of the dairy industry, after first entrusting technical servicing and the repair of machines to RAPO enterprises.

For the immediate future, extreme importance is attached to organizing the technical re-equipping of existing enterprises and introducing into operations new capabilities for ensuring the continuous acceptance of increasing volumes of fruit and vegetable raw materials for processing. A great amount of work remains to be carried out in connection with reducing product losses. A definite amount of work has been carried out in this regard in recent years and yet the measures being employed on the farms are not always in keeping with the modern requirements. The kolkhoz and sovkhos requirements for fruit storehouses have been satisfied by only 50 percent. The redesigning of existing wine-making and alcohol plants and departments on farms and in RAPO's is proceeding very slowly.

At the present time, a new trend has developed in the use of potatoes. Here we have in mind the processing of tubers into products which are ready for use in various types of semi-finished products. The construction of enterprises for the processing of potatoes should ideally be linked to the potato production areas, with provision being made for the complete use of waste materials for feed purposes. In order to ensure that such enterprises operate with the greatest profitability, the kolkhozes and sovkhoses located in the raw material zones must at the present time engage in the propagation of seed for those potato varieties deemed suitable for processing and they must also devote some time to personnel training.

One important reserve for strengthening the economy and raising production efficiency is that of improving the quality of the products. However, priority attention is not being given to this important problem. As a result, the farms and enterprises are annually losing out on considerable sums of money. For example, during 1985 alone, the kolkhozes and sovkhoses in the Russian Federation, as a result of having converted over to "non-standard" quality 95,000 tons of fruit and berry products, or more than 8 percent of the overall volume of purchases, lost approximately 11 million rubles and more than 12 million rubles -- from the sale of sub-standard potatoes. As a result of a reduction of just 1 percent in the standard portion, of the overall volume of vegetables delivered, the farms miss out on approximately 10 million rubles. This fact must be remembered.

For the RSFSR as a whole, 697,400 tons of sub-standard root crops were added to the state's resources from the 1985 sugar beet harvest. The farms in the Bashkir ASSR and Penza Oblast "distinguished" themselves most in this respect. They lost approximately 4 million rubles as a result of having sold more than 300,000 tons of low quality products to the sugar plants.



Kolkhozes and sovkhoses in the Russian Federation missed out on more than 53 million rubles as a result of failure to observe zooveterinary rules and unsatisfactory utilization of equipment in the primary processing of milk. Such losses were especially high in Voronezh, Saratov and Smolensk oblasts. This represented unforgivable waste. The proportion of undernourished and low-weight animals turned over slaughtering continues to remain high and, as a result, the overall farm losses during the first quarter alone amounted to approximately 147 million rubles. Hundreds of thousands of rubles were lost in Saratov, Orenburg and Novosibirsk oblasts. The intra-farm slaughtering of livestock on a mass scale could only be referred to as a squandering of valuable resources. During the January to March period of this year alone, 379,000 head of cattle, 577,000 hogs and 666,000 head of sheep and goats were slaughtered on farms in the Russian Federation. Moreover, the average weight for one head amounted to 163 and 25 kilograms respectively. And if these animals had been brought to delivery condition, more than 23,000 additional tons of meat would have been added to the state's resources.

Losses in livestock live weight are being tolerated as a result of failure to observe the rules for accepting the animals and also because the animals are being held too long at the enterprises prior to slaughtering. Thus, during 1984 and 1985 alone, delays were tolerated at the Leningrad Meat Combine in the processing of 686 batches of livestock. Last year a reduction took place in the state of nourishment of more than 9,000 head of livestock, the live weight of which was 493 tons and the value -- 225,000 rubles. Similar cases have been uncovered in Ulyanovsk Oblast.

During reorganization of the administrative system for the agroindustrial complex, in conformity with the requirements of the party's central committee, the functions and tasks of the new organs were defined and a considerable expansion took place in the rights and independence of local associations, that is, those responsible for solving the practical problems associated with implementation of the Food Program.

The transfer of the meat and dairy enterprises into the structure for rayon agroindustrial associations will make it possible to organize the on-site production of whole milk substitutes in a majority of the rayons and this will raise its marketability considerably. The need for increasing the production of meat demands more extensive involvement of the private plots in solving this problem. Towards this end, the plans call for an increase in the sale of young stock and feed and an improvement in the maintenance of pastures. The production of livestock husbandry products must become an inalienable part of the plans for the economic and social development of kolkhozes and sovkhoses.

The enterprises of Agroprom must solve serious and important tasks concerned with increasing the production of food products by 25 percent during the five-year period. It bears mentioning that many enterprises of the food, dairy and meat industry have turned out to be unprepared for such rates of growth in the production of food goods. In particular, solutions have still not been found for those problems associated with the production of packaged materials. As a result, products produced by the food industry store very poorly, they are not readily transportable and they do not present an attractive appearance.

Since the very first days of its operations, RSFSR Gosagroprom, jointly with local economic organs, has studied measures for the modernization and expansion of existing enterprises of the food branches and the construction of new ones. The plans call for a considerable reorientation of capital investments. Assuming an overall growth in capital investments for the republic's Gosagroprom during the current five-year plan of 8 percent, the plans call for the use of 70 percent more for development of the mentioned branches than was actually used during the past five-year plan.

A solution with regard to further improving the economic mechanism of the country's agroindustrial complex, one which expands considerably the independence of enterprises and kolkhozes and raises their interest in and responsibility for the final results of their work, is considered to be a reliable economic foundation for the accelerated development of all of its branches. It is clear that the return will be complete only when the new methods of management are reinforced by efficient internal economic accounting and extensive use of the brigade and collective contract.

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LIVESTOCK AND FEED PROCUREMENT

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INTENSIFIED BEEF PRODUCTION IN SPECIALIZED LIVESTOCK ENTERPRISES

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Article by L.K. Ernst, Academician at the All-Union Academy of Agricultural Sciences imeni V.I. Lenin and A.V. Shichalin, Candidate of Economic Sciences: "Intensification of Beef Production"/

Text In the "Basic Directions for the Economic and Social Development of the USSR During the 1986-1990 Period and for the Period Up To the Year 2000," approved by a decree of the 27th CPSU Congress, the plans call for an increase during the 12th Five-Year Plan in the average annual volume of gross agricultural output of 14-16 percent and a considerable improvement in the efficiency of agricultural production, based upon intensive factors and the introduction of scientific achievements and leading practice into operations.

The country's livestock breeders are confronted by large tasks. By 1990, meat production must be raised to 21 million tons in dressed weight, or 23 percent more than the amount produced in 1985. Last year, beef accounted for 43 percent of the overall production of meat and for the 12th Five-Year Plan the plans call for beef production to be increased at more rapid rates. The planned increase in the rates of growth is very tense and yet fully realistic. It is based upon a more complete utilization of the logistical base available at the kolkhozes and sovkhozes and upon the already created genetic potential for meat productivity of cattle.

At the present time, almost 96 percent of the beef is being produced in the zones of dairy and dairy and beef cattle husbandry through the raising and fattening of replacement young stock and also adult culled out animals. The specialized farms for the maturing and fattening of livestock, created at kolkhozes and sovkhozes on the basis of intra-farm specialization, and also inter-farm enterprises engaged in the raising and fattening of young cattle stock, have considerable reserves at their disposal for increasing beef production and lowering production costs.

Analysis reveals that the production of livestock husbandry products increased considerably during the 1983-1985 period, mainly as a result of branch intensification accompanied by stabilization in the number of animals in a number of regions. Increases were recorded in the average daily weight increases in the young stock during raising and fattening, the delivery weights for animals sold to the state were raised and the production profitability for

beef was raised. During this period, beef production increased by 12.1 percent as a result of intensive factors.

The scientific-research, technological and planning-technological institutes have developed and are introducing intensive production technologies into operations at kolkhozes, sovkhoses and inter-farm enterprises, technologies which make it possible to make good use of the genetic potential of productive cattle, while realizing a considerable reduction in labor and material expenditures per unit of output.

At the present time, the intensity involved in the raising and fattening of young stock on many farms and at complexes of the industrial type is higher by a factor of 2-3 than the average for kolkhozes and sovkhoses and the labor intensiveness of beef production is lower by a factor of 8-10.

The introduction of intensive production technologies for beef in all zones throughout the country will be carried out based upon a further strengthening of production specialization and production concentration, to a level which will make it possible to use sufficiently effectively the system of machines and equipment for the all-round mechanization of livestock husbandry farms and also to ensure efficient labor organization.

Taking into account the trends and level of specialization of farms and complexes, various technological solutions have been developed, the use of which is making it possible, in keeping with local conditions, to utilize more completely the existing numbers of cattle for increasing beef production.

1. A technology with a complete production cycle calls for the specialized farms and complexes to be supplied with young stock ranging in age from 3 weeks to 1-1.5 months and for them to be raised and fattened to a live weight of 400-450 kilograms or more, with a growth intensity which will ensure that the mentioned weight is achieved at 16-18 months of age. Such technologies are being employed by a large number of complexes of various capabilities in all regions of the country.

The optimum dimensions for complexes or farms of the industrial type are determined depending upon zonal peculiarities, the cattle concentration per 100 hectares of agricultural land, the character and level of intensity of feed production operations and upon other existing local conditions. Thus the Belorussian NIIZh /Scientific Research Institute of Livestock Breeding/ recommends a technology having a complete production cycle for 3,000 cattle billets, for a number of regions throughout the republic. Larger complexes are operating in this region. The Kirghiz NIIZhIV /Scientific Research Institute of Livestock Breeding and Veterinary Science/ has developed a beef production technology having a complete production cycle for 7,200 head of fattened animals annually. For the nonchernozem zone of the RSFSR and a number of regions in Siberia, beef production technologies have been developed for 5,000 or more head of young cattle stock.

An analysis of the work being carried out by a number of active enterprises with technological, technical and organizational solutions of this type allows one to draw the conclusion that the efficient observance of the technology



called for will ensure highly efficient beef production in the various zones of the country and with an adequately high level of concentration.

The intensive utilization of animals throughout the entire period of raising and fattening is ensured at all of the mentioned complexes and this makes it possible to produce beef with low expenditures of labor, feed and other resources.

Typically, a strengthening of intra-branch specialization in dairy cattle husbandry, the organization of raising operations for 3-4 week old replacement young stock at specialized complexes and their subsequent fattening are important conditions for the intensification of milk production in suburban zones, where a high concentration has been achieved in the number of cattle per 100 hectares of agricultural land.

It is in such regions with developed dairy cattle husbandry operations that one finds large kolkhozes and sovkhoses specializing in the production of milk and interested in selling replacement young stock at an early age.

Thus, as borne out by studies, in zones of dairy and dairy and beef cattle husbandry which are specializing mainly in the production of milk, the organization of rather large complexes for beef production with complete cycles for the raising and fattening of young stock is economically justified.

2. Technologies have been developed and are being recommended for use on farms specializing in the maturing and fattening of young cattle stock. In this variant of intra-branch specialization, inter-farm enterprises (complexes) are being created to which the kolkhozes and sovkhoses send their young stock at a live weight of 150-180 kilograms. At these enterprises, the animals are matured and fattened over a period of 10-12 months to a live weight of 400-500 kilograms or more. The average daily increase in live weight as a rule exceeds 700 grams and on some farms it reaches 900-1,200 grams.

The farms and complexes of a number of establishments in Krasnodar Kray and Tambov Oblast and many complexes in Belorussia and the Ukraine specialized in the maturing and fattening of young cattle stock. For example, in 1955 the inter-farm fattening complex in Ust Labinsk in Krasnodar Kray sold 9,432 head of cattle to the state at a live weight of 468 kilograms per head. The average daily weight increase during the fattening period was 763 grams. The farm realized 2.7 million rubles worth of profit from the sale of the cattle. Roughly 27,000 rubles worth of gross output was obtained per worker and the production profitability level was 35 percent.

Various intensive beef production technologies have also been developed for farms and complexes specializing in the fattening of cattle. The intensive fattening of young stock and culled out adult cattle, as the final technological stage in beef production, is being organized both on the basis of intra-branch specialization at large farms and also through the construction of farms and complexes on an inter-farm basis.

The young cattle stock are turned over for final fattening at one year or older and at an average live weight of 280-300 kilograms. The duration

of the final intensive fattening period is 4-6 months and thus with average daily weight increases of 900-1,000 grams it is possible to raise the live weight of the young stock to 420-450 kilograms or higher prior to delivery to a meat combine.

In order to increase the production of beef, special importance is attached to expanding the volumes of final fattening carried out based upon the waste materials of processing enterprises (beet pulp residue, malt residue and other feed resources).

Specialized farms and complexes for the production of beef in the various zones organize the final fattening taking into account the character of the feed base. For example, at sovkhozes in oblasts of the Uralsk economic region, pasture maintenance is combined with final indoor fattening to a live weight of 440-470 kilograms. In many regions in western Siberia and also in the central nonchernozem zone, the fattening is carried out using cultivated pastures and on farms in Belorussia and the Ukraine -- based upon the use of waste materials of the processing industry. For example, the Pervomayskiy inter-farm complex in the Ukrainian SSR sold 20,700 head of cattle to the state in 1985 at an average live weight of 385 kilograms. The average daily weight increase during fattening was more than 1,000 grams, with a feed expenditure of 680 feed units per quintal of weight increase. Roughly 21,000 rubles worth of gross output was obtained per worker and the profitability level was more than 46 percent.

Depending upon the local conditions, many farms organize their cattle fattening operations at sites with varying capabilities -- for 1,000, 3,000, 6,000 or 10,000 cattle billets. For example, sites were organized for the final fattening of cattle based upon intra-farm specialization at the Nazarovskiy Sovkhoz in Krasnoyarsk Kray. Intensive fattening using the machine technology makes it possible to obtain cheap beef, with labor expenditures per quintal of increase in weight not exceeding 1.5-2.0 man-hours.

Large fattening sites are in operation on an inter-farm basis in Rostov Oblast and Krasnodar Kray. Thus a site for the fattening of 15,000 head annually is in operation at the Armavirskiy Sovkhoz. In 1985, 20,200 head were fattened at this site and turned over to the state at an average live weight of 436 kilograms. The production profitability level for an average fattening intensity was approximately 27 percent and the annual profit from the sale of cattle -- 4.3 million rubles.

At the Bratsk site in Rostov Oblast, 20,700 head of cattle were fattened and turned over to the state in 1985, with the average live weight per animal being 414 kilograms. A profit of 2.9 million rubles was realized from the sale of the cattle.

A specific expression of beef production intensification is the process of industrializing it and converting it over to intensive technologies. This is a natural process. It is based upon a high level of industrial development and upon improvements in the technical equipping of the country's agroindustrial complex.

There are approximately 400 beef production complexes in operation throughout the country and analysis has shown that the intensity in the raising and

1. Principal Production-Economic Indicators for Some Complexes Having Complete Beef Production Cycles (1985)

	Imeni 60-Letiya USSR in Vologda Oblast	Imeni 60-Letiya USSR in Gorkiy Oblast	Voronovo in Moscow Oblast	Valuyskiy in Belgorod Oblast	Suzdalskiy in Vladimir Oblast
Sold to state (number of head)	11,109	12,162	13,439	12,158	9,519
Average weight for 1 head (kg)	449	427	409	430	422
Average daily increase in weight during entire period (in grams)	1028.0	998.0	949.0	1004.0	941.0
Feed consumption per quintal of increase in weight (in feed units)	540	660	660	540	640
Labor expenditures per quintal of increase in weight (in man-hours)	4.4	3.4	3.1	3.5	3.3
Production profitability level (in %)	30.2	42.3	62.2	70.6	41.3
Annual profit obtained (in thousands of rubles)	3,771.0	4,993.0	6,412.0	5,652.0	3,779.0
Gross output produced per worker (in thousands of rubles)	57.2	59.6	53.6	53.7	58.9
Gross output obtained per 100 rubles of fixed capital (in rubles)	652.3	627.7	447.1	614.4	551.7

fattening of young stock at these facilities is higher by a factor of 1.7 than at sovkhoz and kolkhoz farms, feed consumption per quintal of increase in live weight is lower by 34 percent and the labor intensiveness for production -- lower by a factor of 3.7. The best complexes have even higher production-economic indicators.

A weak feed base is viewed as the principal restraining factor with regard to accelerating the rates of intensification for the raising and fattening of young cattle stock.

The country's scientific-research institutes have developed recommendations for organizing the feed base at specialized farms for beef production for all regions of the country. They call for the development of a feed base on an intensive basis. Prior to building a new complex or expanding the production volume of an existing farm based upon modernization, the plans call for the advance development of a feed base by 1-2 years.

The size of the land area required for the sowing of forage crops is planned based upon the feed requirements of a beef production complex and sound intensification of the feed production operations, systems of agrotechnical measures for raising the productivity of these crops are developed and solutions are being found for the problems of logistical support, including the construction of feed storehouses and hard surface access roads. For example, for the conditions found in the Ukraine, such a system for organizing feed production ensures a feed yield per hectare of up to 5500-5600 feed units, with the average annual labor expenditures per hectare for

the cultivation, procurement and delivery of feed being 41-46 man-hours and all material expenditures -- from 193 to 211 rubles. This makes it possible, with strict observance of the prescribed technology, to raise the value of 1 feed unit of ration an average of up to 4-5 kopecks during the entire raising and fattening period and to achieve highly profitable beef production.

The use of the mentioned scientific recommendations for the intensification of beef production in all regions of the country will make it possible to increase considerably the return from the introduction of intensive technologies, through more complete utilization of the genetic potential for animal productivity and by raising the intensity of the raising and fattening operations.

Thus, in 1985, at the Chapayevskiy beef production complex in Zaporozhye Oblast, which has a complete production cycle, 9,700 head of young cattle stock were raised, fattened and sold to the state. The average daily increase in live weight during the entire raising and fattening period was 817 and during fattening -- 958 grams. The feed consumption per quintal of increase in live weight was 720 feed units. The rations for the young stock consisted of internally produced hay, haylage and corn silage. Direct labor expenditures were 3.8 man-hours and the production cost for the weight increase -- 126.5 rubles. The profitability level for beef production exceeded 50 percent and the annual profit from the sale of young stock -- approximately 3 million rubles. Roughly 43,600 rubles worth of output was produced per individual.

In 1985, at the 50 Let Tatarii Sovkhoz Complex in the Tatar ASSR, 9,923 head of young cattle stock were raised, fattened and sold to the state. The young stock are maintained at the complex for 11-12 months at a raising and fattening intensity of more than 800 grams and then they are sold to the state at a live weight of 420-450 kilograms. Over the course of a year's time, 15,700 rubles worth of gross profit were obtained per worker and the farm's profit amounted to almost 1.7 million rubles.

At the Mir Complex in Brest Oblast in the Belorussian SSR, 13,600 head of young cattle stock were raised, fattened and sold to the state, with the average live weight per head being 515 kilograms. During the entire raising and fattening period, the average daily increase in live weight amounted to 1,100 grams, including 1,213 grams during the fattening period. This made it possible to lower the feed consumption per kilogram of increase in live weight to 4.5 feed units, with a concentrate expenditure of 2.74 kilograms. The labor-intensiveness of production amounted to 2.27 man-hours per quintal of increase in live weight and 71,800 rubles worth of gross output was obtained per worker. The profitability was 34 percent. During the year, 553 rubles worth of gross output and 308 rubles of profit were obtained per 1,000 rubles of fixed capital. This allows one to draw a conclusion concerning the high level of reimbursement for fixed capital that is ensured by a high level of production intensification.

It is important to note that the period of time required for the raising and fattening of young stock, from the moment they are delivered to the complex until they are turned over to a meat combine at an average live weight per animal of more than 500 kilograms, does not exceed 14-15 months. A profit of more than 5 million rubles was realized from the sale of cattle to the state following fattening.



There are seven complexes of the above type in Belorussia. A high level of intensification in the production of beef has been achieved at all of them, one which ensures beef production with a feed consumption per quintal of increase in weight that does not exceed 650 feed units, labor intensiveness -- roughly 6 man-hours and profitability -- in excess of 30 percent.

Similar examples of fine organization in the production of beef are to be found in Leningrad, Moscow, Belgorod and Vologda oblasts, Krasnoyarsk Kray, Bashkir ASSR, Ukrainian SSR and in other zones throughout the country.

Thus the creation of specialized enterprises having rather high concentrations of young cattle stock available for raising and fattening is making it possible to organize the highly efficient production of beef in various regions throughout the country. The creation of such livestock husbandry complexes, which actually operate based upon the principles of inter-farm enterprises, is strengthening the process of intra-branch specialization in cattle husbandry and expanding the opportunities for the intensive production of beef.

During the 27th CPSU Congress, emphasis was placed upon the need for employing an intelligent approach in connection with the efficient merging of large, medium and small enterprises. This applies in equal measure to the organization of specialized enterprises for the production of beef.

An analysis of the production-economic indicators for complexes which vary in size, but which specialize in the raising and fattening of cattle in various zones throughout the country, makes it possible to state that efficient beef production can be organized at enterprises of the industrial type and with a reduced concentration of animals (see Table 2).

It is apparent from Table 2 that complexes having different concentrations of animals at the same enterprise operate efficiently in various zones throughout the country. Each such enterprise has its own technological and organizational peculiarities and yet the chief one is the same for all enterprises -- intensive utilization of the animals. The differing levels of mechanization of the production processes, especially in the organization of labor, and the varying concentrations of animals affect the labor-intensiveness of beef production -- it varies greatly. But high indicators for the weight increases in cattle ensure an adequate profitability level at all enterprises.

Similar examples of efficient organization of beef production operations, involving different concentrations of animals and enterprises which vary in size, are to be found in all republics and oblasts.

For example, the Lipetskiy sovkhos complex for 4,000 cattle in Lipetsk Oblast sold cattle to the state in 1985 the average live weight per head of which was 425 kilograms. Here the average daily increase in weight during fattening amounted to 1,043 grams and the production cost per quintal of weight increase -- 107 rubles. A profit of more than 2 million rubles was realized from the sale of these animals. Roughly 43,000 rubles worth of gross output was obtained per worker.

In 1985, the Salskiy complex in Rostov Oblast, which can handle 3,000 cattle, sold 1,905 head of cattle to the state, the average live weight per head of

## 2. Production-Economic Indicators for Complexes of Different Capabilities for Beef Production (1985)

	Donskoy in Stavropol Kray	Gigant in Penza Oblast	Kupyanskiy in Ukrainian SSR	Grudinovskiy in Belorussian SSR
Number of cattle billets	11,200	4,100	6,000	2,800
Cattle sold to state (number of head)	9,825	6,102	10,986	3,938
Average live weight of 1 animal sold to the state (in kg)	411	420	383	443
Average daily increase in live weight during entire period (in grams)	895.0	789.0	1,063	757.0
Feed consumption per quintal of increase in weight (feed units)	630	910	843	1,170
Labor expenditures per quintal of weight increase (man-hours)	3.40	11.5	5.9	10.5
Profitability level (in %)	34.0	29.9	45.1	23.1
Gross output per worker (in thousands of rubles)	39.9	44.6	21.9	23.2

which was 411 kilograms. The average daily increase in live weight in an animal during fattening was 915 grams. The complex obtained 70,500 rubles worth of gross output per worker and the profit amounted to 608,000 rubles.

The intensive utilization of animals makes it possible to obtain more than 2 quintals of increase in live weight per cattle billet and 559 rubles worth of gross output and 322 rubles of profit per 1,000 rubles worth of fixed capital.

In 1985, the Kumertauskiy complex in the Bashkir ASSR sold 7,219 head of cattle, the average live weight per head of which was 402 kilograms. A high fattening intensity at the level of more than 1,000 grams daily makes it possible to obtain 2.5 quintals of increase in live weight per cattle billet and to produce 22,800 rubles worth of gross output per worker. Roughly 546 rubles worth of gross output and 297 rubles worth of profit were obtained annually per 1,000 rubles worth of fixed capital.

Raising and fattening operations are being carried out at a high intensity at the Vitebskiy complex in Novosibirsk Oblast for 3,700 cattle billets, at the Luch kolkhoz complex in the Bashkir ASSR for 2,800 cattle billets, at the Talitsa complex in Sverdlovsk Oblast for 4,700 cattle billets and at many other installations. High production efficiency has been achieved at these complexes.

A comparative analysis of the production-economic indicators for farms and complexes which vary in size reveals that the size of an enterprise influences to a considerable degree the labor intensiveness of beef production. With a reduced concentration of animals, the labor expenditures per quintal of weight increase tend to rise. However, observance of the principal conditions for the efficient organization of production operations, assuming the introduction of machine technologies and taking into account the peculiarities of each farm,

the status of the feed base and also well thought out labor organization and wages for the livestock breeders, make it possible to use rather completely the productive qualities of the young stock, carry out intensive raising and fattening operations and achieve a high degree of effectiveness and reimbursement for expenditures on the farms and complexes of varying capabilities. Thus an efficient combination of large, medium and small enterprises specializing in the production of beef is a necessary condition for solving the problems concerned with further growth in the production of meat and raising its efficiency in all of the country's zones.

Throughout the country, only 20 percent of the farms maintain 3,000 or more head of cattle. Hence the proportion of kolkhozes and sovkhoses which are capable of creating sufficiently large farms for the production of beef based upon intra-farm specialization is negligible. Consequently, for the further development and intensification of beef production and depending upon the zonal peculiarities, the potential for organizing inter-enterprise farms and complexes of the industrial type must be realized more fully.

The experience accumulated in Krasnodar Kray, Voronezh Oblast and the Ukrainian SSR and also in other regions of the country reveals that the organization of inter-farm enterprises for the maturing and fattening of cattle serves as a substantial reserve for increasing beef production, based upon more complete use of the available resources in each rayon, oblast and republic, through the intensification of raising and fattening operations for all available young stock and adult culled out cattle and improving them to high weight conditions.

The organization of inter-farm enterprises for the production of beef is also of great importance as a factor for ensuring more complete utilization of natural feed lands throughout the country, for organizing the fattening of cattle on pastures. Our country has considerable areas of natural pasture at its disposal, the use of which for the fattening of cattle will make it possible to obtain cheap beef.

It bears mentioning that at the present time the inter-farm enterprises are accepting only 1.3 million head of cattle for maturing and fattening, a figure that is extremely low.

Experience accumulated in Krasnodar Kray has shown that the inter-farm complexes for the fattening of cattle are operating in a highly efficient manner. In 1985, more than 86,000 head of cattle were sold to the state here, with the average live weight being in excess of 400 kilograms per head. And the Ust-Labinsk complex turned over to the state 9,400 animals, the average live weight of which was 468 kilograms per head. The inter-farm complexes in Krasnodar Kray are accepting cattle of various ages and different live weights for maturing and fattening. For example, the Kanevskiy enterprise accepts young stock weighing from 110 to 120 kilograms. In 1985, with an average daily increase in weight of 752 grams during maturing and fattening, the complex turned over almost 11,000 head of young stock at an average live weight of 415 kilograms. The profit from the sale of the cattle amounted to 3.2 million rubles and the profitability level was 45 percent.

Other inter-farm enterprises of the industrial type, such as Timashevsk, Otradnenskiy and others, also have high production-economic indicators. A

majority of these complexes are carrying out their maturing and intensive fattening operations using waste products of the processing industry, thus making it possible to lower the consumption of concentrated feed and to obtain cheaper products. In 1985, the profit obtained from the sale of cattle by 12 inter-farm complexes in Krasnodar Kray amounted to almost 25 million rubles.

Inter-farm enterprises have been created and are operating successfully in the Ukraine. One of them, the Palmirskoye enterprise in Cherkassy Oblast, is carrying out the intensive fattening of cattle based upon the use of pulp residue. Here, in 1985, 10,200 head of cattle were fattened and sold to the state at an average live weight of 448 kilograms per animal. The average daily increase in live weight during fattening was 1,035 kilograms. More than 2.3 million rubles worth of profit was realized from the sale of the cattle.

The foundation for a successful increase in the production of beef -- intensification of feed production, leading rates for the development of feed production and more complete utilization for the fattening and grazing of cattle of natural pastures, together with long-established pastures. A large reserve for further increasing the production of beef is the development of beef cattle husbandry on an intensive basis, especially in Kazakhstan, Siberia, the lower Volga region, the southern Urals, the north Caucasus, Central Asia and in the Far East.

It bears emphasizing that the extensive introduction of modern industrial technologies for the production of livestock husbandry products, including beef, is not only of great economic but also social importance. The work being performed by a livestock breeder continues to be very laborious, with a high proportion of manual labor being involved. A great amount of work is being carried out throughout the country at the present time in connection with improving the working conditions for livestock breeders. Dining halls, showers and medical stations are being built on the farms. Housing conditions are improving and domestic living conditions in the rural areas are becoming more like those prevailing in cities.

The introduction of modern industrial technologies is making it possible to raise the importance and attractiveness of work and the prestige attached to the profession of livestock breeder and it is serving to attract more young people to working in the branch. In short, the intensification of beef production is inseparably associated with further improvements and the introduction of modern industrial production technologies.

In each region of the country, maximum use must be made of the existing opportunities for increasing beef production based upon the already created genetic potential for the animals. This is making it possible to achieve a more complete transformation of the feed nutrients into high quality livestock husbandry products.

All of this is making it possible to accelerate a solution for the most important national economic problem -- ensuring that the population of our country is supplied with high-quality beef.

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## FOOD PROCESSING , DISTRIBUTION

### TRADE FROM PRIVATE PLOTS AT TULA MARKETS SUPPORTED

Moscow IZVESTIYA in Russian 25 Sep 86 p 2

[Article by A. Pushkar, IZVESTIYA special correspondent: "Who is In Charge at the Market?"]

/Text/ Tula--Last year, in a report, "Accounting For Potatoes", /IZVESTIYA Issue No. 260/, we discussed the poor organization of the fruit and vegetable trade at Tula and the long lines, including those waiting for the products of local gardens. What is the situation today?

This year the cucumbers were not very good in the Tula region -- they were adversely affected by blight conditions. On the other hand, there were large quantities of other vegetables -- tomatoes, potatoes.

Together with the chief of the oblast's administration for markets, we walked among the rows and saw the following: tomatoes for from 1-1.5 rubles per kilogram, peppers and eggplant for 1.5-2 rubles, common onions for 1 ruble and so forth. Grapes were going mainly for 2 rubles and a cheerful uncle from Central Asia was praising a special type of pepper selling for 4 rubles. Watermelons were selling for 70-80 kopecks, the best apples for a ruble and cheaper apples -- for 50-60 kopecks. Private plot potatoes were selling at the rate of 1 ruble for three kilograms.

But the trade was not very brisk at the central market. Actually, Gorplodoovoshchtorg was doing quite well; in its stores throughout the city and in its pavilion at the market, tomatoes were selling for 30-40 kopecks per kilogram, grapes -- 60-80 and potatoes -- 8 kopecks. It was gratifying to note that representatives from the oblast's kolkhozes and sovkhoses have finally made an appearance at the Central Market. Seven farms have taken up permanent places in the stalls and on weekends dozens of kolkhoz and sovkhos motor vehicles visit the market.

Thus the horticultural Bogucharovo Sovkhoz engages in trade: large red apples for 50 kopecks and Chinese apples sell like hotcakes for 20 kopecks. Salesmen from the 60 Let SSSR stand alongside piles of cabbage, beets, carrots, dill and parsley. Their vegetables are large and clean and less costly than the market vegetables. And the book of testimonials, shown to us by sovkhos salesman K. Kurovskaya, contains many entries reflecting the gratitude of the residents of Tula to the oblast executive committee, the municipal executive committee and

oblagroprom for the fine manner in which the vegetable trade has been organized. Indeed, thanks to the presence of the kolkhozes and sovkhoses, the prices for some of the products have been lowered -- for early potatoes, cabbage and apples. According to computations by the chief of the oblast's administration for markets N. Medved, roughly 300,000 rubles remained in the pockets of the city's residents. Meanwhile, the people saved a great amount of time, which in past years was spent standing on lines!

An interesting detail of market life: a cabbage trader who earlier sold his unsophisticated product at the rate of 1 ruble per kilogram has been dislodged from the market by agroprom. Perhaps he is waiting for winter, as in past years, in order to take advantage of the cabbage shortage in the stores. "He will wait in vain" we were assured by the deputy chairman of the municipal executive committee I. Kiryanov. This year, several of the city's vegetable storehouses were modernized and new ones built. Roughly 1,000 more tons of potatoes will be placed in storage and 6,000 tons of cabbage -- more by a factor of three than the amount stored earlier.

Some farms, especially those which trade in early potatoes, have already sensed the attraction of the market and have realized good profits.

Enterprising leaders search for methods for achieving a stable and less burdensome presence at the market. Thus the director of a Tula sovkhos N. Sevryugin stated that the collective would soon open up two of its stores -- in Tula and a sovkhos village -- for the sale of apples and young plants and also obviously stalls in Moscow. The plan calls for city residents to be trained to serve as salesmen.

The kolkhozes and sovkhoses are presently encountering a need to learn how to trade and maneuver prices, the flexibility of which affects not only the pockets of purchasers but also the farm budgets. At the Central Market we saw bored salesmen from the Krasivenskiy Sovkhos with bags of potatoes who stubbornly wished to obtain 30 kopecks per kilogram for their potatoes, despite the fact that Gorplodoovoshchtorg has been selling them for a long period of time for 8 kopecks per kilogram. The salesmen are not authorized to change the prices and the farm leaders and oblagroprom, which for one reason or another always adhere to the average market prices, did not take into account the rapidly changing business conditions. The question comes to mind: who then must dictate the prices? In this instance it turns out to be the market to which the agroprom is connected. And it should be just the opposite, particularly under conditions involving a large harvest.

Yes, in order to place potatoes in storage, just as was the case last year, the tags this year should not be written. Nevertheless, when one travels about the city he sees lines here and there at the vegetable stores, for potatoes at the state price and also for onions and watermelons. Gorplodoovoshchtorg was unable to deliver the watermelons, tomatoes or grapes which it had in adequate quantities and Oblpotrabtyuz did not close the breach which formed in the case of purchases in other oblasts. In the case of onions, earlier the oblast supplied them to other regions and yet now it waits to receive them from Ryazan, Rostov and Central Asia. The time is at hand for the Tula agroprom to rid itself independently of its onion problems.

And finally there is the trade proper -- stalls, stores and markets. An inhabitant of the large Myasnovskiy micro-region, V. Batishcheva, stated that the lines at these facilities almost never diminish. Moreover, there are only two vegetable stores, one of which is the size of a single-bedroom apartment. A stall with the high-flown title of Vegetable Market presents a very poor appearance and has a meagre assortment of products. Grandmothers find room for themselves and make some money selling vegetables, fruit and greens at the gates near the store entrances. Their presence is very convenient for the residents: there is no need to stand in line or to go to the Central Market. But from time to time the grandmothers are threatened by militia patrols in vehicles. Is the militia acting in a legal manner? Yes, the local soviet organs have handed down decisions in this regard. But were they justified in doing so? Unfortunately, the deputy chairman of the municipal executive committee I. Kiryanov, the chief of the administration for markets N. Medved and other leaders with whom I spoke regarding this matter are not too disturbed over the concerns of people living on the edge of the city. They believe that trade can be carried out only in the areas assigned for this purpose, so as not to spoil the face of the city. It turns out that they are more disturbed by the grandmothers selling dill than by the lines leading up to the counters.

Last year, wooden pavilions for the sale of flowers appeared in several busy areas in the city of Tula. There is obviously a need for small markets for those who have surplus apples, potatoes and dill. This will also aid in bringing an end to the lines in stores and it will save the people's time, the equivalent of money.

There is still another typical episode in the life of the Tula market, one found on the north-south highway. In one of the pavilions, a young man and woman, members of a contractual brigade consisting of 12 individuals who came to Shchekinskiy Rayon from Kherson to harvest potatoes and who received a payment in kind of 10 percent of the amount harvested by them (26 tons), are selling excellent select potatoes. The man, a driver by profession, stated that the brigade works from sunrise to sunset extracting everything from the land down to the last tuber. But he categorically refused to state his name: "They will learn in the collective just how I spend my vacation time and they will ridicule me."

There is really no reason for ridicule and those people should be held up as an example who preserve that which is grown and who earn difficult money through labor performed during their free time and by trade at the market. One must learn how to trade and how to show respect for those engaged in trading.

# LABOR

## CONSUMER COOPERATIVE LABOR PRODUCTIVITY STATISTICS

Moscow SOVETSKAYA POTREBITELSKAYA KOOOPERATSIYA in Russian No 9, Sep 86 pp 22-24

[Economic review by the Main Financial-Economic Administration of the USSR Central Union of Consumers' Societies: "Intensive Labor -- A Requirement of the Times"]

[Text] The program developed by the party for accelerating the country's economic and social development is aimed at achieving a high level of labor productivity and improving the quality of output and production efficiency. In each association, at each enterprise and at each working position, maximum use must be made of the reserves available for raising labor productivity -- such is the task assigned by the 27th CPSU Congress. Reserves are also to be found in consumer cooperation. This is borne out by the operational results of cooperative enterprises and organizations in connection with raising labor productivity and the use of labor resources during the past five-year plan.

TABLE 1

Rates of Growth for Labor Productivity in Branches of Consumer Cooperation Activity During the Years of the Eleventh Five-Year Plan (in percentares)

Отрасли кооперативного хозяйства (1)	(2) Темпы роста производительности труда за годы						Доля прироста объема деятельности за счет повышения производительности труда (3)	
	1981	1982	1983	1984	1985	1981-1985	(4) по плану	(5) фактически
Торговля (6)	103,8	103,2	103,0	102,4	100,8	113,9	83,3	80,4
Общественное питание (7)	103,9	104,1	103,9	103,2	100,7	116,8	76,7	74,4
Промышленное производство (8)	103,9	105,6	105,8	102,6	100,6	119,8	100,0	84,5

### Key:

- |  |                          |
|--|--------------------------|
| 1. Cooperative Economy branches  | 4. According to plan     |
| 2. Labor productivity rates of growth for the years:                                   | 5. Actual                |
| 3. Proportion of increase in activity volumes as a result of raised labor productivity | 6. Trade                 |
|  | 7. Public catering       |
|  | 8. Industrial production |

In conformity with the decisions handed down during the 10th Congress on Consumer Cooperation, the plans call for increases in the volumes of retail turnover in the trade network (83.3 percent), public catering enterprises (76.7 percent) and in industrial output, by means of raised labor productivity.



However the assigned task has not been carried out. Although a considerable portion of the increase in activity volumes was obtained in all branches of the cooperative economy by means of raised labor productivity, nevertheless the planned goals were not achieved (see Table 1). Why was this so?

It must be recognized that the tasks assigned for the 11th Five-Year Plan with regard to growth in labor productivity were extremely tense and yet fully attainable. In order to achieve the assigned goals, the administration of Tsentrosoyuz /USSR Central Union of Consumers' Societies/ undertook to carry out special purpose all-round programs aimed at reducing the use of manual labor and improving the use of equipment and the complete streamlining of the work being carried out by cooperative enterprises and organizations.

The implementation of the special purpose all-round programs and organizational-technical measures brought about an increase in labor productivity in trade of 13.9 percent during the five-year period, in public catering -- 16.8 and in industrial production -- 19.8 percent. Moreover, it increased at leading rates compared to the average wage, including payments from the material incentive fund (see Table 2).

TABLE 2

Comparative Indicators for Growth in Labor Productivity in Branches of Consumer Cooperation Activity During 1981-1985 (in %)

Отрасли (1)	(2) Темпы роста			
	объемов активности (3)	числа рабочих (4)	производи- тельности труда (5)	средней заработной платы, включая выплаты из фон- да материального поощрения (6)
Торговля (7)	117,9	103,5	113,9	107,8
Общественное пи- тание (8)	124,2	106,2	116,8	109,2
Промышленное производст- во (9)	124,5	103,8	119,8	114,1

Key:

- |                        |  |
|------------------------|--|
| 1. Branches            | 6. Average wage, including payments from the material incentive fund |
| 2. Rates of growth     | 7. Trade   |
| 3. Volumes of activity | 8. Public catering   |
| 4. Number of workers   | 9. Industrial production   |
| 5. Labor productivity  |  |

As a result of carrying out the special purpose program for reducing the use of manual labor, a planned number of workers were released who earlier were engaged in performing manual labor in all branches of activity on the whole, including in trade, procurements and industry. All-round industrial efficiency promotion work was carried out at 108,000 retail trade enterprises (against a plan calling for 107,000 enterprises) and at 400 wholesale bases and storehouses. Roughly 33.2 percent of the overall increase in the trade areas of stores and 18 percent of the increase in storehouse areas were achieved by means of modernization and the adaptation of trade facilities.

In industry, including the baking industry, the number of workers increased compared to 1980, although according to the plan it should not have exceeded the figure for 1980.

TABLE 3

Comparative Indicators for Growth in Labor Productivity in Cooperative Trade During 1981-1985 (in percentages)

(1)	(2) Темпы роста				(7) Итого процентное соотношение к плану	
	товаро-оборот	численности работников	производительности труда	средней заработной платы включая выплаты из фонда материального поощрения	по плану (8)	фактически (9)
(10) Россия и СССР	117,9	103,5	113,9	107,8	83,3	80,4
(11) в том числе:						
(12) Русский	115,8	103,2	112,2	108,7	83,2	79,7
(13) Украинский	116,4	100,5	115,7	107,8	96,9	97,0
(14) Белорусский	118,8	103,0	115,3	109,9	80,3	84,0
(15) Узбекский	127,3	110,2	115,7	110,7	73,3	62,6
(16) Казахский	120,2	103,5	115,9	106,3	82,6	82,7
(17) Грузинский	116,6	104,3	111,9	105,7	78,6	74,1
(18) Азербайджанский	128,1	117,4	109,2	100,0	59,0	38,1
(19) Литовский	120,2	103,2	116,4	111,7	84,2	84,2
(20) Молдавский	115,7	103,0	112,4	103,2	92,6	80,9
(21) Латвийский	117,3	101,6	115,3	102,8	90,4	90,8
(22) Киргизский	123,2	107,0	115,2	109,9	74,9	69,8
(23) Таджикский	130,9	116,5	112,3	105,6	56,0	46,6
(24) Армянский	117,3	108,8	107,7	103,0	46,1	49,1
(25) Туркменский	124,1	107,8	115,2	105,9	76,3	67,6
(26) Эстонский	117,9	100,4	117,4	113,2	96,8	97,8

## Key:

- |  |                 |
|--|-----------------|
| 1. Unions of consumers' societies  | 13. Ukrainian   |
| 2. Rates of growth   | 14. Belorussian |
| 3. Goods turnover  | 15. Uzbek       |
| 4. Number of workers   | 16. Kazakh      |
| 5. Labor productivity  | 17. Georgian    |
| 6. Average wage, including payments from the material incentive fund                 | 18. Azerbaijan  |
| 7. Proportion of increase in goods turnover resulting from raised labor productivity | 19. Lithuanian  |
| 8. According to plan   | 20. Moldavian   |
| 9. Actual  | 21. Latvian     |
| 10. Total for USSR   | 22. Kirghiz     |
| 11. Including:   | 23. Tajik       |
| 12. Russian  | 24. Armenian    |
|  | 25. Turkmen     |
|  | 26. Estonian    |

How were the planned tasks for raising labor productivity within individual unions of consumers' societies carried out?

If we evaluate the status of affairs in trade, then one half of the union republic unions of consumers' societies did not cope with the tasks for raising labor productivity by means of intensive factors (see Table 3). Included among them are the large Russian and Uzbek societies. In public catering, a majority of the unions of consumers' societies did not carry out the appropriate planned tasks (see Table 4). In the Azerbaijan and Tajik union republics, cooperative trade and public catering over the course of the entire five-year plan developed extensively, that is, mainly by means of an increase in the number of workers.

TABLE 4

## Comparative Indicators for Growth in Labor Productivity in Public Catering Consumer Cooperation During 1981-1985 (in %)

Потребсоюзы (1)	(2) Темпы роста				(7) Темпы роста на плановый период за счет освоения производительности труда	
	товаро- оборота (3)	численности работников (4)	производитель- ности труда (5)	средней заработной платы, включая выплаты из фонда материального поощрения (6)	по плану (8)	фактически (9)
(10) Всего по СССР . . . . .	124.2	106.2	116.8	109.2	76.7	74.4
(11) в том числе:						
(12) Российский . . . . .	119.5	105.0	114.0	110.9	74.9	74.4
(13) Украинский . . . . .	117.5	102.4	114.7	109.7	86.5	86.3
(14) Белорусский . . . . .	126.4	105.8	119.6	111.2	85.4	78.0
(15) Узбекский . . . . .	141.3	112.5	125.6	109.8	71.2	69.7
(16) Казахский . . . . .	133.4	109.3	122.1	109.6	73.1	72.2
(17) Грузинский . . . . .	123.5	105.6	117.1	105.2	82.6	76.2
(18) Азербайджанский . . . . .	144.2	118.7	122.0	101.0	73.9	57.7
(19) Литовский . . . . .	125.6	108.2	116.1	108.2	79.8	68.0
(20) Молдавский . . . . .	126.5	108.1	117.1	104.8	84.3	69.4
(21) Латвийский . . . . .	124.9	105.8	118.0	112.6	79.7	76.7
(22) Киргизский . . . . .	124.1	109.0	114.0	112.5	62.2	62.7
(23) Таджикский . . . . .	146.1	122.8	119.0	103.9	58.1	50.5
(24) Армянский . . . . .	134.3	109.9	122.1	103.3	71.6	71.1
(25) Туркменский . . . . .	149.0	108.5	137.0	110.8	74.3	82.7
(26) Эстонский . . . . .	125.1	104.9	119.4	114.7	79.5	80.5

## Key:

- |  |                 |
|--|-----------------|
| 1. Unions of consumers' societies  | 13. Ukrainian   |
| 2. Rates of growth   | 14. Belorussian |
| 3. Goods turnover  | 15. Uzbek       |
| 4. Number of workers   | 16. Kazakh      |
| 5. Labor productivity  | 17. Georgian    |
| 6. Average wage, including payments from the material incentive fund                 | 18. Azerbaijani |
| 7. Proportion of increase in goods turnover resulting from raised labor productivity | 19. Lithuanian  |
| 8. According to plan   | 20. Moldavian   |
| 9. Actual  | 21. Latvian     |
| 10. Total for USSR   | 22. Kirgiz      |
| 11. Including:   | 23. Tajik       |
| 12. Russian  | 24. Armenian    |
|  | 25. Turkmen     |
|  | 26. Estonian    |

The actual number of trade workers exceeded the numerical limit approved for the five-year plan, both for the USSR on the whole and for the individual republics. For example, in the Uzbek potrebsoyuz /union of consumers' societies/ the actual number of trade workers amounted to 10.2 percent compared to the planned figure of 9.7 percent, in the Azerbaijan potrebsoyuz -- 17.4 compared to 13.5, in the Moldavian potrebsoyuz -- 3 compared to 1.4 and in the Tajik potrebsoyuz -- 16.5 compared to 14.8 percent.

With regard to industrial production, the tasks in this branch for raising the output volumes by means of an increase in labor productivity were fulfilled only by the Latvian potrebsoyuz and the Main Administration of Tsentrosoyuz (see Table 5). In a number of potrebsoyuz's, labor productivity in the branch declined: by the end of the five-year plan, it amounted to 98.1 percent in the

Azerbaijan potrebsoyuz, 98 percent in the Moldavian potrebsoyuz and 86.1 percent in the Armenian potrebsoyuz. These and other potrebsoyuz's increased considerably the number of workers compared to the 10th Five-Year plan: Azerbaijan potrebsoyuz -- by 37.2 percent, Tajik -- by 40.5, Turkmen -- by 32.9, Moldavian -- by 14.6 and the Uzbek potrebsoyuz -- by 26.2 percent.

TABLE 5

Comparative Indicators for Growth in Labor Productivity in Cooperative Industry During 1981-1985 (in %)

(1)	(2) Темпы роста				(7)
	(3) общий рост	(4) численности работников	(5) производительности труда (1981)	(6) средний размер заработной платы, включая выплаты из фонда материального стимулирования	
(8) Всего по СССР . . . . .	124.5	103.1	119.8	114.1	84.5
(9) в том числе:					
(10) Российский . . . . .	118.0	100.7	117.1	113.7	96.1
(11) Украинский . . . . .	129.9	101.2	124.2	113.7	96.0
(12) Белорусский . . . . .	130.5	104.8	124.7	116.3	84.3
(13) Узбекский . . . . .	109.8	126.2	134.6	111.6	62.5
(14) Казахский . . . . .	132.0	107.9	122.4	113.8	75.3
(15) Грузинский . . . . .	122.0	107.2	114.0	112.1	67.3
(16) Азербайджанский . . . . .	134.6	137.2	98.1	134.7	x)
(17) Литовский . . . . .	108.2	100.2	107.9	110.7	97.6
(18) Молдавский . . . . .	110.9	124.6	98.0	109.4	x)
(19) Латвийский . . . . .	108.3	97.5	111.2	109.6	100.0
(20) Киргизский . . . . .	119.6	105.0	114.1	120.9	74.5
(21) Таджикский . . . . .	145.1	140.5	104.0	109.6	12.1
(22) Армянский . . . . .	82.5	95.7	85.2	113.0	x)
(23) Туркменский . . . . .	159.9	132.9	120.0	111.4	45.1
(24) Эстонский . . . . .	119.2	101.0	117.9	110.6	94.8
(25) Главки Центросойюза . . . . .	106.4	95.2	111.4	115.3	100.0

(25) а) Снижение производительности труда

Key:

- |  |  |
|--|--|
| 1. Unions of consumers' societies                                    | 13. Uzbek                                |
| 2. Rates of growth   | 14. Kazakh                               |
| 3. Output volumes  | 15. Georgian                             |
| 4. Number of workers   | 16. Azerbaijan                           |
| 5. Labor productivity  | 17. Lithuanian                           |
| 6. Average wage, including payments from the material incentive fund | 18. Moldavian                            |
| 7. Proportion of increase in output from raised labor productivity   | 19. Latvian                              |
| 8. Total for USSR  | 20. Kirghiz                              |
| 9. Including:  | 21. Tajik                                |
| 10. Russian  | 22. Armenian                             |
| 11. Ukrainian  | 23. Turkmen                              |
| 12. Belorussian  | 24. Estonian                             |
|  | 25. Main administrations of Tsentrosoyuz |
|  | 26. x) reduction in labor productivity   |

The potrebsoyuz's in which labor productivity declined tolerated high rates of growth in the average wage: Azerbaijan -- by 34.7 percent, Armenian -- by 13 and Moldavian -- by 9.4 percent. Leading rates of growth in the average wage compared to labor productivity were noted in the Lithuanian, Kirghiz and Tajik potrebsoyuz's.

The unsatisfactory indicators for labor productivity underscore the weak control being exercised by the potrebsoyuz's over the carrying out of the measures



associated with the special purpose all-round programs; greater attention is not being given to the technical re-equipping of the enterprises. The equipment made available for use by trade, public catering, procurement and industrial enterprises is not being utilized in an efficient manner. Up to 50 percent of this equipment lies idle for long periods of time as a result of untimely and low quality repair work or it is being operated with technical defects. In the Uzbek and Tajik potrebsoyuz's, the machines and mechanisms being received are not being placed in operation in a timely manner and annually there are major normal surpluses of uninstalled equipment.

The elimination of the mentioned shortcomings will serve as a considerable reserve for raising labor productivity during the 12th Five-Year plan.

The basic directions for the economic and social development of consumer cooperation during 1986-1990 and the period up to the year 2000 will be further intensification of the branches based upon an acceleration in the rates of growth for labor productivity. The development and implementation of special purpose programs and organizational-technical measures, the introduction of which will make it possible, with comparatively small expenditures, to achieve a considerable reduction in manual labor, are being continued for the purpose of carrying out this task. The complex of such measures includes a reduction in the number of stages involved in the movement of goods, the use of automation in importing programs, the introduction of an information and dispersion system, production centralization and cooperation, improvements in the management of norms and in scientific labor organization and the rationalization and streamlining of working positions.

In order to achieve the planned increase in operational volumes through a rise in labor productivity, an expansion must take place in the areas of use of the brigade form for organizing and stimulating labor and administrative management in the creation of all-round and multiple skill brigades, with wages being based on a single order and the final result and with collective earnings being distributed taking into account labor participation, must be disseminated on a more extensive scale.

The combining of professions and responsibilities, which makes it possible to carry out a volume of work with fewer personnel, serves as a time-tested method of raising labor productivity. Under these conditions, it is possible to expand the zone of services, divide shifts into two parts and increase the volume of work carried out by attracting personnel to work incomplete working days or short work shifts.

In the decree of the Tsentrosoyuz Administration entitled "General Measures With Regard to Raising Labor Productivity and Utilizing Labor Resources in the Consumer Cooperation System During 1981-1985 and the Tasks for 1986" (May 1986), the attention of the administrations of a number of potrebsoyuz's was directed to the unsatisfactory work being performed in raising labor productivity. The recommendation has been made to have all of the republican potrebsoyuz's and also the main administrations and units directly subordinate to Tsentrosoyuz intensify their efforts to carry out the special purpose all-round programs and measures aimed at increasing the rates of growth for labor productivity.

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LABOR

NEWSPAPER'S CORRESPONDENT SUPPORTS 'MOONLIGHTER' SERVICES

Moscow IZVESTIYA in Russian 25 Aug 86 p 2

[Article by M. Ovcharov, IZVESTIYA staff correspondent, under the rubric, "The Soviets and Consumer Services": "Who Needs Him, This Moonlighter?"]

[Text: Yaroslavl-- I telephoned the garment repair shop: "Can you turn grandmother's coat? And make a fashionable jacket out of an out-of-style raincoat? And narrow some trousers at the same time?" They could. Then I asked another, perhaps not very serious question: "And if the buttons have come off my jacket?" I thought that I would be respectfully told to go somewhere, but the girl on the other end of the line sighed, which was evidently supposed to indicate what a hapless fellow I was, and said tersely: "Bring it."

I recalled that I still needed to have a lock installed in my door. In other cities, according to my observations, in such a situation local residents would seek out an "Uncle Vasya" off the street. I once again opened up the book and dialed the required number: "Is it possible you could?" The reply: "Is tomorrow o.k. with you? After 6:00 p.m.?" I was surprised. But at the appointed time a young man named Volodya came and installed the lock, thereby confirming the prestige of consumer services in Yaroslavl. I settled with him according to the bill and found out that Volodya worked on a contractual basis, as a second job, and received an additional 50 to 60 rubles. He could cover a door, install a lock, put in electric wiring, or put up a cornice or chandelier. In general, a jack of all trades.

"There's only one thing that's bad," he complained. "There aren't that many orders." The problem is the "interceptors," that is, the moonlighters."

Later I learned that Yaroslavl is not an exception in this respect. In Andropov the picture is just the same. As I was told, the local moonlighters are young and pushy: They are always the first to arrive at an apartment building where people are just moving in. They pocket 80 to 100 rubles a day.

This, of course, is very distressing to the city consumer services, especially since their employees' earnings are not so high on account of rigid rates. In despair of overcoming the "interceptor" through their own efforts, their employees went to the city Soviet executive committee and asked it to take

action. The moonlighters were summoned to the Department for Combating the Embezzlement of Socialist Property and Speculation, but they were not terribly afraid: "Why is it you think our income is unearned? We don't steal materials. We buy them in the stores and have to go all over Moscow to find them. We do this work after our regular jobs, and the law doesn't forbid that." And they're right; it doesn't forbid it. And most likely it's right not to, because the only thing that can get rid of the moonlighter is healthy competition.

"The reason the moonlighter gets work," said L. Fedoreyeva, director of the Oblast Rental Association, in an interview with me, "is that he performs work quickly and takes the customer's wishes into account. He has materials to suit any taste, while we go to the storehouse and see nothing but faded upholstery."

As we see, a simple law manifests itself: as soon as a crack opens up in the sphere of consumer services--on account of our slowness--it is instantaneously covered, with a high degree of artfulness, by a moonlighter. And it would be naive in the highest degree to imagine that we could put an end to this phenomenon, which has become firmly established in our life, in a single stroke. In any event, if we suddenly managed to do away with moonlighting, we ourselves, with our constant need for a mass of diverse consumer services, would suffer certain losses. This is why it seems that the repellent but simultaneously attractive figure of the moonlighter deserves to be taken seriously.

It would be a big mistake to imagine that it's easy for the moonlighter to "rip off" his thousands. No, it's hard for him. For he does not operate in a vacuum. I provided several characteristics of the Yaroslavl consumer services.

Yaroslavl's consumer services have begun to overcome departmental barriers. In accordance with a decision by the oblast Soviet executive committee, each enterprise has been given a specific assignment as to which consumer services it must provide using its own manpower. And now one service in six is already a "departmental" one.

Last year the oblast's consumers received 63 million rubles' worth of services. One wants to exclaim: Splendid! But there is also an accompanying question: For all this, how much money did moonlighters pocket? And although the statistics are silent on this matter, one thing is clear: We're talking about many millions and, possibly, even tens of millions of rubles. This is precisely the money on which the Yaroslavl consumer services played out and which, with our involuntary blessing, the moonlighter immediately picked up. However, his picking it up is seemingly not disgraceful if he doesn't exceed the bounds of the permissible in the process. But here a question arises: Since the moonlighter is objectively needed for the time being, can't something be done so that he will also be useful to the state?

Every coin, as we know, has two sides. That's also true of Yaroslavl's consumer services.

Recently the oblast Soviet executive committee and the collegium of the USSR Ministry of Consumer Services adopted a joint decree on the development of services related to the maintenance, repair and construction of residences, around cottages and garages on the basis of orders from the public. Today something has already managed to be done. The consumer services administration has arranged for the production and installation locally of two types of orchard cottages--300 of them a year are being put up. At least the abundance of the problem has been eliminated. The huge waiting lists have disappeared. It's interesting that the consumer services enterprises are, at the same time, making sheds and fences for the cottage owners and putting up other structures. Understandably, for all his desires, the moonlighter can't go into operation here. But look at housing repair and maintenance, an area that suffers for all of us. In the course of a year consumer services performs maintenance and repair work on fewer than 6,000 apartments, whereas 72,000 of them are in need of it. So once again, the moonlighter.

"Let's be frank," says A. Barakin, director of the oblast consumer services administration, "our maintenance and repair workers' work is not popular among the public, primarily because clients do not like the quality of the finishing materials that we have at our disposal. For example, in Yaroslavl there is the well-known Lako-Kraska Association, which produces first-rate enamels. Wouldn't they be great in apartments! But we can't use them, since we haven't got any allocations of these enamels. At the same time any resident of Yaroslavl gets the famous enamels anyway, since, despite all the high fences, they safely escape from the enterprise grounds. But this is true of more than enamel."

Why should we close our eyes to this and pretend that nothing is happening? Wouldn't it be more intelligent to sell people the products that are so needed to maintain their apartments? V. Aristov, vice-chairman of the oblast Soviet executive committee, cited the following example: According to estimates, rural private plots require 0.3 percent of the manure that is obtained from the oblast's livestock sections each year. If it were sold and, what's more, delivered to houses, the kolkhoz and sovkhos coffers would receive approximately 200,000 rubles. But the executives of the oblast agro-industrial association steadfastly refuse to sell manure to the public: They say they haven't got enough themselves. But fertilizer disappears anyway: Some people steal it, like the enamel, and sell it to their fellow villagers--for a bottle!

There's an extremely interesting item: As soon as rigid stereotypes are removed in practice, and not just in words, the ground starts to slip out from under the feet of the illicit operator. Private plots in the oblast occupy 15,500 hectares--a tremendous area, which it is impossible to till with a spade. But everyone knows that a tractor can turn over a private plot in a half-hour or an hour. That's exactly the way kolkhoz and sovkhos tractors and machinery operators have long been tilling other people's gardens--for that same bottle.

But here's what happened this spring in Gavrilov-Yamskiy Rayon: The rural consumer services enterprise started to rent out Belarus tractors on kolkhoz and sovkhos. Altogether more than a thousand private plots were tilled last



way. And although this amounted to only a tenth of them, the consumer services received about 10,000 rubles.

If you imagine that work on the plowing of private plots alone were really to develop on a full scale both in that rayon and in the oblast as a whole, the state would receive an additional 800,000 rubles. At the very least. Now all this money goes into the pockets of people who operate "on the side."

Here another question arises in all urgency: If we impose a strict and fully warranted ban on the extraction of unearned income, we ought simultaneously to arrange things so that the public's interests do not suffer in the process. But are consumer services prepared for this today?

A. Barakin, director of the oblast consumer services administration, recounted:

"G. Zamyatin, chairman of the Myshkinskiy Rayon Soviet Executive Committee, phoned me yesterday: 'Help us, for God's sake. Give our consumer services at least a broken-down truck.' I told him: 'They've got a UAZ [Ulyanovsk Automotive Plant] car.' The chairman replied: 'What they need is a truck. You understand, I've been deluged with complaints from the public. Since 1 July the militia has been standing guard outside stores and catching drivers operating on the side. But how can a person haul a cupboard, washing machine or firewood home if there's no transportation agency?' That's the situation. And not just in Myshkinskiy Rayon. What can the director of the oblast consumer services administration do if he has no trucks and no prospect of getting any in the near future?"

Most likely, it's necessary without spinning wheels and beating around the bush to do everything possible both to "clamp down" on the moonlighter and to prevent the public from suffering any inconvenience on this account. Yet clamping down, I dare say, is not the most reliable course. Here is what A. Barakhin had to say about that: "If we don't enlist the moonlighters on our side, we won't be able to last out the five-year period." So we should regard the moonlighter not just as a grabber worried about his own big earnings but also as a potential reserve for consumer services.

But is everything possible being done today to make the moonlighter "ours"? Here's a recent episode that happened after the first of July. Two moonlighters, specialists in covering doors, dropped by the consumer services enterprise: If you hire us to work, they asked, what will the terms be? At first the discussion went well--these two were interested in the prospect of making decent earnings working for consumer services if they worked according to a contract based on a fixed profit: You turn over so much to the till, and the rest is yours. They were about to agree, but they were told: Only you yourselves have to find the orders. No common language could be found. Yet why were the craftsmen so hastily rebuffed?

Of course, it is difficult in such a situation to provide any ready-made formulas. But one thing should be indisputable: there is a need to show flexibility and more flexibility, to take the existing situation into account, and possibly even to compromise in some respects.

In Yaroslavl there is a radio plant and, nearby, a settlement. A television and radio repair shop opened up there, but people don't patronize it. The explanation is simple: there are highly qualified craftsmen who work "on the side" living in the residential development. Think about it: It's convenient for people to use their services--they don't have to go to the repair shop, drag a heavy television there, or sit at home for a whole day waiting for a mechanic.

Yaroslavl is also where a good idea was born: what if that moonlighter (usually an engineer) worked for consumer services as a second job? Let him service his own apartment building or a group of apartment buildings, as he was doing formerly, but openly and honestly. And let him earn money--considerable money--on the basis of a fixed profit rate. This would be advantageous both to him and to the state. But no, so far this undertaking hasn't gotten anywhere. And here's why: People are required--according to existing regulations--to get authorizations from their main place of employment. And they do not want to do this for purely psychological reasons--they're embarrassed. They're afraid that their enterprises will consider their second jobs, which are perfectly legal, something dishonorable.

"But why are these authorizations needed, anyway?" heatedly asks V. Aristov, deputy chairman of the oblast Soviet executive committee. "After all, in any event no one can put obstacles in the way of a person's taking a second, part-time job. An empty formality is spoiling the undertaking."

Some people think that the moonlighter suddenly descended upon us from out of the blue. No, that's not the case. We ourselves engendered him. More precisely, he was engendered by our far-from-perfect system of consumer services. So, roundly cursing the moonlighter is not only senseless but in some respects even unfair. We should approach the problem of the moonlighter without any preconceptions. What we need to do is not to shun him like an evil spirit, but to arrange things so that he will serve us all.

B75A

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## EDUCATION

### IMPROVED TRAINING IN VOCATIONAL, TECHNICAL SCHOOLS PROPOSED

Moscow SOTSIALISTICHESKIY TRUD in Russian No 9, Sep 86 pp 58-62

[Article by A. Aleynikov, laboratory chief, Belorussian Branch of BNIIproftekhobrazovaniya [All-Union Scientific-Research Institute of Vocational and Technical Education], candidate of economic sciences, and L. Goncherenko, group leader: "Regional Planning of Worker Training at PTU [Vocational-Technical Schools]" ]

[Text] In the planning studies that define the scope and structure of the training of skilled workers at the educational institutions in the USSR Gosprofobr [State Committee for Vocational Education] system, a leading place belongs to computations of the long-term needs of the branch ministries and their enterprises for such cadres. When drawing up a well substantiated training plan, as is well known, one uses the balance-sheet computation method, which makes it possible to correlate the need for skilled worker training with the sources for supporting that need with regard to various forms of vocational training. The methodological principles for computing the balance-sheet indicators have received broad illumination in the scientific and special literature. However, as has been indicated by research, the existing methodology for developing the balance-sheet computations of the need for training does not yet take into complete consideration the specifics of the various republics. The existing methods and procedure for determining the need for the training of skilled workers, as well as the sources for satisfying that need, in most instances do not guarantee the summarizing of the departmental computations into a composite national-economic balance sheet for the skilled workers in the specific republic, or the checking of their reliability either in the qualitative or quantitative aspect. The basic reason for this lies in the shortcomings in developing the methodological and organizational principles for planning the overall long-range number of skilled workers, which is the initial base for determining the training need for the period being planned. As for that part of the need for the training of worker cadres which is satisfied by the vocational-technical schools, at the republic level it exists only in the form of requisitions issued by the base enterprises to the agencies of vocational-technical education, which requisitions are mostly drawn up without consideration for the factors that determine the planned number of skilled workers, proceeding from the existing training-materials base and the number of students who can be accommodated in the vocational-technical schools assigned to them.

It is also necessary to improve the organizational principles for developing the republic-level balance-sheet computations of the long-range need for skilled workers. In conformity with the methodological instructions of USSR Gosplan, the all-union and union-republic ministries and departments, within a two-year period after the approval of the State Plan for the Economic and Social Development of the USSR, report to the Gosplans of the union republics the balance-sheet computations of the additional need for manpower and the measures for supporting that need, with a numerical breakdown by enterprises and organizations situated on the territory of the corresponding republic, and for the republic as a whole. At the same time, the methodological recommendations do not provide for communicating to the union republics the balance-sheet computations of the need for the training of skilled workers, although the USSR ministries and departments carry out those computations for each union republic (with a numerical breakdown by enterprises and organizations situated on their territory). Therefore the Gosplan of the union republic has at its disposal data concerning the need for skilled worker training only for the republic and nonindustrial union-republic ministries and departments. At the same time the training plans and the balance-sheet computations for the distribution of general-educational school graduates along the channels of further instruction are drawn up by republic territory. As a result, the republic today does not have any integrated idea of the national economic need for skilled worker training, which defines the scope of training at the vocational-technical schools.

As a result of the fact that the plans for training skilled workers at vocational-technical schools at the level of the union republics are basically not determined by the computations of the regional need for these cadres, and a considerable number of enterprises under the all-union ministries do not plan and train at all at vocational-technical schools, but, rather, attract already trained workers or retrain the workers on the job itself, the true extent of the need for training new skilled workers is concealed.

At the present time, in the system of training and assigning worker cadres, the numerous procedures which, to a considerable degree, complicate the process of developing and fulfilling plans for the training of skilled workers at vocational-technical schools. On the one hand, there still are rather serious difficulties with the base enterprises or organizations refuse to accept a considerable number of skilled workers who have been trained for them at vocational-technical schools within the confines of a requisitioned need. In 1966, for example, many of the base enterprises and organizations in MPS (Ministry of Railroads), Minudobreniy [Ministry of Fertilizers], Minstankoprom (Ministry of the Machine-Tool Industry), Minkhimprom [Ministry of the Chemical Industry], and Minvuziroteknprom [Ministry of the Electrical-Engineering Industry] refused graduates of vocational-technical schools in the BSSR who had originally been requisitioned. On the other hand, the vocational-technical schools cannot find jobs for their graduates who, in order to satisfy the admission plan "by gross," were admitted into worker training groups in occupations that are prestigious but not within the area of specialization of the particular educational institution, and who often are not needed by the national economy. It no longer surprises anyone, for example, that the vocational-technical schools for construction workers



and forest workers, which have failed to man completely the training groups in conformity with the requisitioned need for skilled workers, organize the training of radio-equipment installers and vegetable growers, to whom, in violation of the statute governing the placement of graduates of secondary vocational-technical schools, work in their specialty after the completion of their training is, as a rule, not provided.

A situation that is not always justified from positions of the interests of the national economy is the orientation of individual base enterprises on increasing the training in vocational-technical schools of skilled workers in certain mass occupations, but ones that are not prestigious. This is promoted by the lack of substantiation of the requisitions sent in by the enterprises and the computations made by the ministries that are attempting to compensate for the turnover rate of workers in those occupations. As a result there is a substantial increase in the national-economic expenditures for the unjustified retraining of an ever-increasing number of workers in the mass occupations because of the change in the sphere of application of their labor. In addition, difficulties in manning the groups for training workers in the nonprestigious occupations and the lack of understanding of young people's interests and strivings lead objectively to the lessening of the attention to the vocational choices made by the secondary school graduates. It is no accident that in 1955, in BSSR, more than 2500 graduates of vocational-technical schools were not assigned for the reasons mentioned.

The reorganization of the economic mechanism requires a rethinking also of the problems that are linked with the training and assignment of cadres of skilled workers, as well as requiring the improvement of the system of planning and administering vocational-technical education and the qualitative improvement of the work performed by the base enterprises and the vocational-technical schools. The experience of the personal placement of graduates of secondary vocational-technical schools under the new management conditions attests to the fact that the enterprises can no longer express a requisitioned need for the training of new skilled workers "just in case," without taking into consideration the retraining of the manpower made available. Therefore the USSR Gosprofobr system must carry out their training strictly in conformity with the requisitioned need. However, this is not yet always achieved. The reasons are the insufficient development of the production base of the vocational-technical schools; the lack of the necessary equipment, curriculum documentation, the proper cadre support; etc. Frequently, as a result of the departmental dissociation of the educational institutions and the insignificant need for skilled workers in the particular occupation, the fulfillment of the requisition made by the base enterprise leads to additional expenditures.

In this regard it is necessary for the ministries and departments having vocational-technical schools to reconsider the extent and structure of training, by groups of occupations and individual specialities, in conformity with the additional need that their enterprises will have for skilled workers, and also to reconsider the system that has developed for providing student accommodations to training skilled workers for other ministries and departments on a cooperative or contractual basis. At the same time the ministries and departments that do not have vocational-technical schools must

not, under conditions of the limitation of labor resources, orient themselves toward the arbitrary reassignment of the already trained manpower, the retraining of which, in addition, requires additional expenditures. The saving of capital investments for the construction of vocational-technical schools, from the positions of departmental interests, results, as a rule, in considerable expenditures for the national economy as a whole.

A major problem for many regions of the country is the increased difficulties in manning the vocational-technical schools, especially for the broadest mass occupations. The nonfulfillment of plans or failure to complete them as a result of the unjustified change in the structure for admitting students in the individual occupations and specialties leads to disproportions in training skilled workers, and in the final analysis to a loss of the internal interrelations between the training plans and the balance-sheet computations for involving young people in training and work.

In recent years a number of steps have been taken to support the plans for admitting students for instruction at vocational-technical schools. The most important one is aimed at improving the manning of the instructional institutions of the vocational and technical education system. This has been reinforced by increasing the disciplinary responsibility borne by the local planning and administrative agencies, the general-educational schools and the vocational-technical schools for the efficient drawing up and fulfillment of the plans for manning them. But nevertheless, as a whole, the balance-sheet computation of the assignment of the general-educational school graduates along the channels of further instruction, which is supposed to implement the long-term policy in the area of education and simultaneously to guarantee the resolution of the tasks of manning all the educational institutions and finding jobs for young people in the national economy of the specific territories, is not yet completely fulfilling the functions assigned to it. Although it does stipulate various indicators, subdivided by oblasts, for attracting young people to the vocational-technical schools depending upon the number of graduates of general-educational schools and the development of the network of educational institutions in vocational-technical education, it is, for the time being, the result of computations "from above," without sufficient consideration of the peculiarities of the individual territories. Frequently one observes different readings in the indicators and forms of the manning plans not only in the numerical breakdown for the union republics, but also the numerical breakdown for individual regions of one and the same republic. The proportions for the assignment of graduates of the incomplete secondary schools to vocational-technical schools and the ninth grades are sometimes unjustifiably differentiated in the territorial cross-section.

In conformity with the reform of the general-educational and vocational school system, in the future there will be an increase in the number of graduates of the incomplete secondary school who are admitted to vocational-technical schools. This will require considerable expenditures from budgetary and departmental sources for the development and reinforcement of the training-materials base in the vocational-technical educational system. A factor that is becoming an important one for increasing the effectiveness of the regional planning of skilled worker training is the substantiation of the construction plans of the ministries and departments for the capital construction of

vocational-technical schools and the activation of new student accommodations in the union republics. Therefore the existing practice of developing plans for the capital construction of vocational-technical schools requires improvement and the introduction of greater efficiency, especially with regard to the organizational principles of planning. This is explained by a number of circumstances.

First, there continues to exist objectively the difference in times for approving the long-range plans for skilled worker training and the capital construction of vocational-technical schools, and this considerably hampers, if not making impossible, the coordination of the increase in the student contingent with the activation of new student accommodations. At the stage of construction planning, the decisions concerning capital investments for constructing vocational-technical schools are chiefly preliminary. Subsequently individual projects frequently are removed from the initial construction plans, and the skilled worker training plans which have been computed with a consideration of the new student accommodations most frequently are not refined. Their fulfillment is achieved by increasing the work load placed on the existing schools, but, as a rule, it is only in the quantitative aspect, that is, "by gross," with a disturbance of the previously coordinated proportions and structures with respect to the volumes, instruction periods, occupations, and ministries.

The attainment of a balance between the student contingent and the number of student accommodations is hindered not only because of the functional dissociation of the planning computations for skilled worker training and the capital construction of vocational-technical schools, but also by the lack of an effective mechanism for gauging the ministries' and departments' economic need for school construction.

Secondly, at the present time the motives for the behavior demonstrated by individual ministries and departments with respect to developing a network of vocational-technical schools are determined not only, and not so much, by the level of the specific needs for skilled workers and the degree of satisfying them from positions of the nationwide approach to the saving of capital investments, as they are by the economic and social interests being realized between the mechanism of the assignment and reassignment of skilled manpower. The ministries that develop a network of vocational-technical schools are those that cannot attract manpower from other branches, or that must carry out the training of skilled workers within the confines of the republic's administrative mechanism, chiefly in connection with the resolution of socioeconomic tasks involving the vocational training of young people, the development of agriculture, the permanent assignment of rural youth, the development of the branches in the nonproduction sphere, etc. Evidence of this is provided by the fact that, for example, in BSSR, more than 47 percent of the skilled workers who are training in vocational-technical schools go into agriculture, personal services, and light industry.

The ministries and departments that do not have vocational-technical schools, as a rule, also do not plan their construction. In the system of assignment relations, they have the opportunity to engage in "pumping" the skilled manpower from other branches, primarily from construction and agriculture. By

virtue of the advantages in the payment of labor, the structure of the occupations that are prestigious for young people, and the broader opportunities to form and use the funds for social and cultural development and housing construction, those ministries can always guarantee an influx of the best-trained workers, and this put them in a more advantageous position.

Thirdly, in a number of instances the unreliable accounting of student accommodations in the existing schools (as a result of the lack of resolution concerning the concept of "one student accommodation" as a planning and accounting category) leads to a situation in which the positions of the ministries, the administrative agencies in vocational-technical education, and the Gosplans of the union republics frequently differ in their evaluation of the degree of work load placed upon the training-materials base at the vocational-technical schools. As a result, they develop different ideas concerning the need to allocate capital investments to developing the network of vocational-training schools.

The previously discussed situation in the planning of the capital construction of projects in the vocational-technical educational system hinders the determination of a well-substantiated investment policy for all ministries and departments in developing the network of vocational-technical schools for the union republic. The economic integrity of the studies in planning its development can be achieved only when they are carried out on the basis of the computations of the additional need for skilled workers for all the ministries and departments having enterprises on the territory of the republic. At such time it is necessary to stipulate the opportunities for using the available student accommodations for training worker cadres for other ministries and departments, as well as for allocating capital investments for the creation of new student accommodations on a contract basis with an indication of the recipients and the sources of financing.

Thus, the most substantial shortcoming in planning the training of skilled workers in vocational-technical schools at the union-republic level is the lack of any substantiated regional computations of the planned need for the training of skilled workers or the capital investments for the construction of vocational-technical schools for all the ministries and departments. It seems to us that the time has come to transfer the resolution of these questions to the union republics. As basic prerequisites for this, one can mention the following:

- 1) the conversion of the national economy to the new management conditions requires, in the interests of the enterprises situated on the territory of the republics, a knowledge of the entire regional need for the training of new skilled workers (with a consideration of the retraining of workers who have been released from other work), for purposes of the efficient assignment of general-educational school graduates along the channels of further instruction;

- 2) the insufficient substantiation of the motivations for the investment activity of the ministries and departments in developing the network of vocational-technical schools conceals the fact that the training plans are determined by the economic need for skilled workers, and this considerably



hampers the process of coordinating the regional plans for developing vocational-technical education;

3) the network of vocational-technical schools that has been created under conditions of extensive development requires the introduction of greater efficiency and making its training-materials base conform to the need that the base enterprises and organizations have for skilled manpower.

An important condition for improving the planning of skilled worker training at vocational-technical schools is the determination and substantiation, for the long-term view, of the territorial proportions in the assignment of graduates of the complete and incomplete general educational school system along the channels of further instruction. The resolution of this task is viewed as one of the most important prerequisites for increasing the balanced state in the plans for skilled worker training and the computations of assignments for young people. However, the problem is not exhausted by this. First of all, it is necessary to create opportunities for guaranteeing the established long-range proportions for assigning the graduates of general educational schools, primarily the eight-year schools, to instruction in vocational-technical schools in absolutely all ministries and departments. Until the present time this could be done basically by developing and improving the network of schools in the republic ministries and departments and in agriculture. Most of the all-union ministries and departments oriented themselves toward the training of skilled workers from among those who had graduated from the complete secondary school system, since that required fewer expenditures to create a training-materials base and it guaranteed broader opportunities for shifting the training reserves as a result of the reduced instruction periods. Under the conditions of the reform of the general-educational and vocational school system, a reform that places the emphasis on earlier occupational choice by the young people, this orientation cannot be acceptable.

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CIVIL AVIATION

Tu-104 RETIRED FROM AEROFLOT SERVICE; FINAL FLIGHT REPORTED

[Editorial Report] Moscow VOZDUSHNYY TRANSPORT in Russian 13 November 1986 carries on pages 1-2 reports of the final flight of the last Tu-104 passenger jet in Aeroflot service. The aircraft was first flown from the Kola Peninsula to Moscow's Sheremetyevo Airport. [Note: a brief item on page 6 of the 31 October 1986 issue of SOVETSKAYA ROSSIYA relates that this flight originated in Murmansk on 31 October and that the crew was commanded by G. P. Demenko.] On 11 November the Tu-104 was flown on to Ulyanovsk, where it will be on permanent static display at the Museum of Civil Aviation. The crew for both legs of the journey consisted of the following State Civil Aviation Scientific Research Institute personnel: the pilot was USSR Meritorious Pilot N. Volodkin; the co-pilot was test pilot first class G. Demenko, who is chief of the institute's flight testing complex; the flight engineer was V. Tsedrov; the navigator was M. Abdulayev; and the radio operator was I. Ilin. In a lengthy interview, USSR Minister of Civil Aviation Boris Pavlovich Bugayev reminisces about the role of the Tu-104 in the development of Aeroflot.

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